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CIO

THE MAGAZINE FOR INFORMATION LEADERS

Lead On

How To Be The
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Warren Bennis guides you through
CIO's Summer **Leadership Curriculum**

STARTING ON PAGE 34

The end of the **beginning.**

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A sepia-toned photograph of a rural landscape. In the foreground, a road or path leads from the bottom left towards the center. To the left of the road, a utility pole stands tall. In the background, there is a dense line of trees and a rolling hill under a cloudy sky. The overall tone is warm and nostalgic.

The next E. **E-services.**

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Leadership

A CIO Summer Curriculum

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INTRODUCTION Learn what it takes to be an enterprise leader in your organization.

By Warren Bennis

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CASE STUDY, PART 1: RELATIONSHIPS For CaliMed CIO David Shepard, a new CEO brings a seat at the boardroom table. His new role as an enterprise leader comes with great rewards—and great risks.

By Richard Pastore

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ROUNDTABLE To take advantage of the critical role IT plays in business today, the CIO's mission needs to be more broadly defined. And so does the CIO.

By Christopher Koch

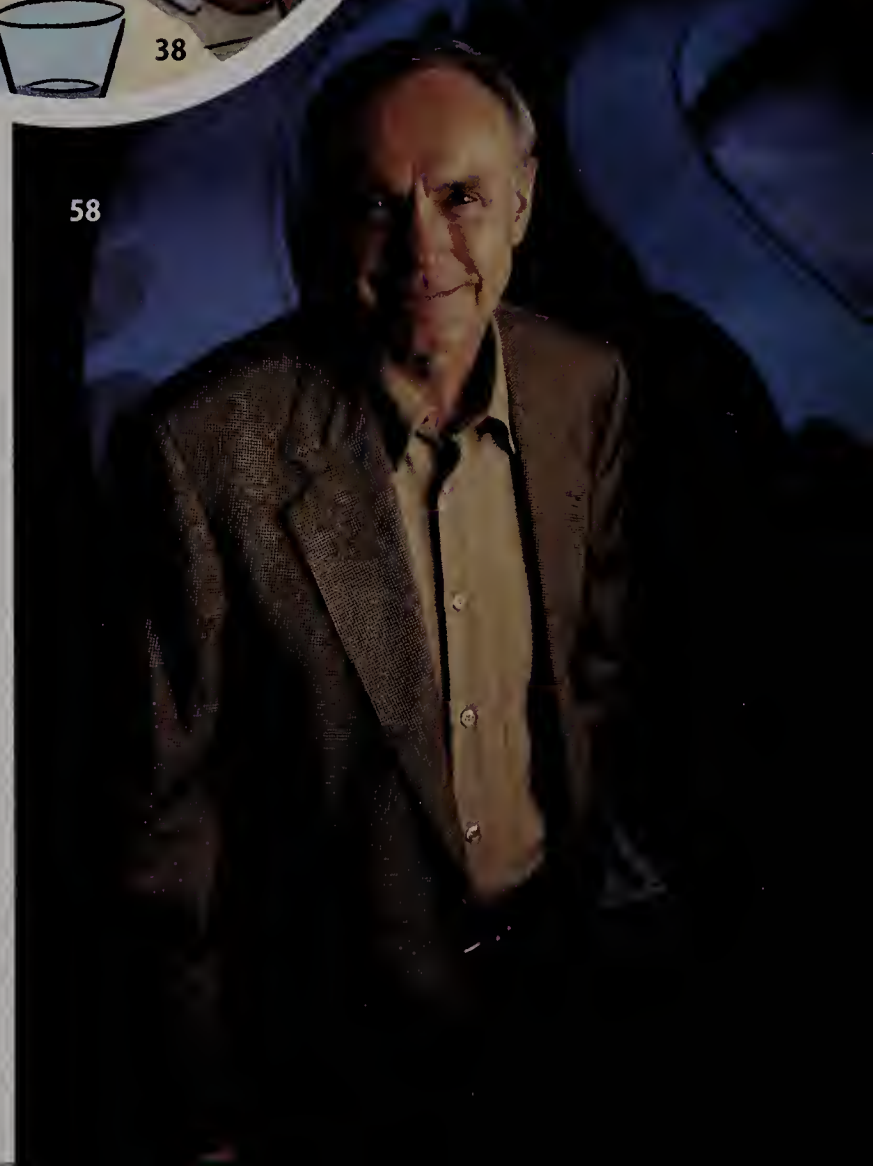
58 Absolute Power

SOFTWARE IMPLEMENTATION New enterprise systems management frameworks make controlling distributed computing environments as easy as connecting the dots. So why are CIOs hesitant to take the ESM brush to the IS canvas? *By Derek Slater*

ON THE COVER

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Cover illustration by Dave Ember



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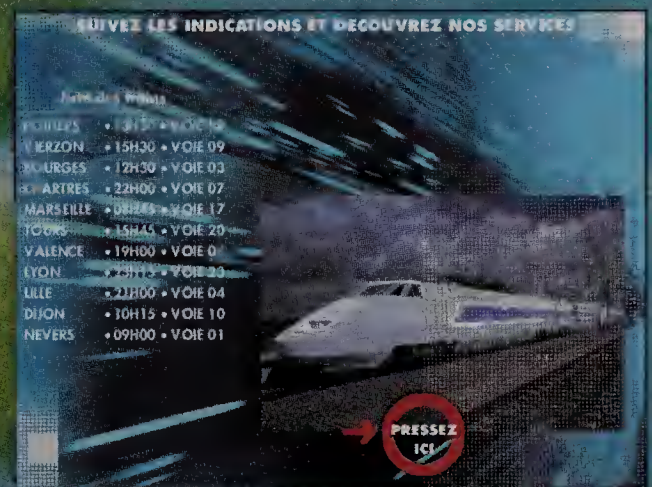
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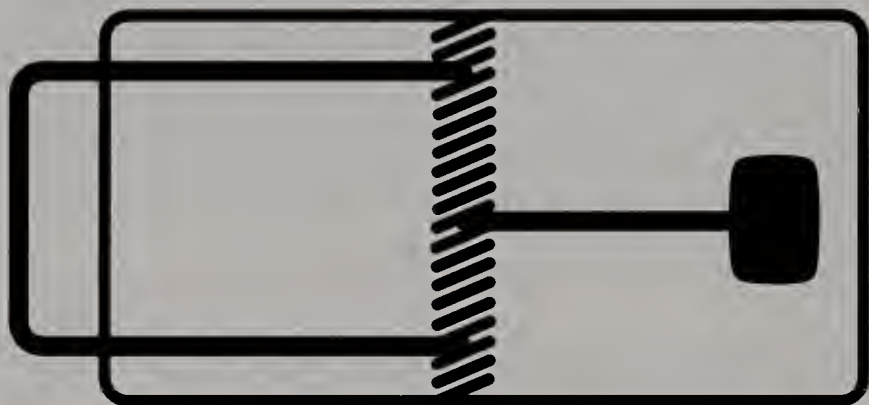
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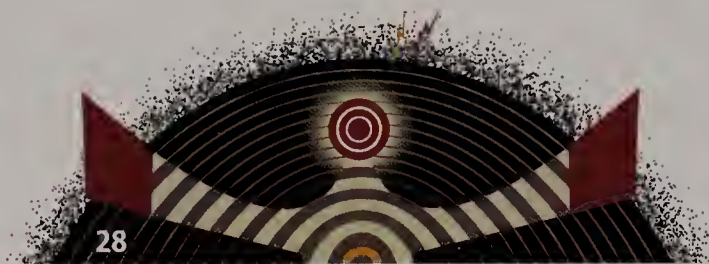
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WORKPLACE ETHICS Meet the new breed of CEOs—chief ethics officers.

REALITY BYTES Free-PC.com's giveaway is a hit, which ticks off privacy groups.

INTELLECTUAL CAPITALISM This year corporate America may waste \$21 billion on online information services.

HANDSHAKE Ticketmaster brings the concert hall to your desktop—almost.

CHECKS & BALANCES Outsourcing remote access can reduce costs.

LEARNING CURVE E-commerce is the most recent step in the evolution of business transactions.



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—Source: PeopleSoft Web Site

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—Source: Siebel SEC Filing 11/13/98



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In Box

LETTER FROM THE EDITOR, READER FEEDBACK
AND HOW TO REACH US

"Managers are people who do things right; leaders are people who do the right thing." –Warren Bennis,
Distinguished Professor of the Marshall School of Business, University of Southern California

If you boil away alignment, measurement, the staffing crisis, Y2K, help desks and all the other IT terrors continuously afflicting you, you're left with one thing—the most important thing. Call it a goal, an obligation, an Achilles' heel. Call it *leadership*.

By leadership, I mean guiding the enterprise as a member of the executive team, with a strong affinity for technology and a cross-enterprise perspective on what's best for the business.

The good news is that after 10 years or more, the CIO role is finally seen as an enterprise leader position. The bad news is that CIOs are failing to meet the expectations of leadership.

John J. Davis & Associates Inc., an executive search firm, surveyed 85 companies on the reasons for CIO failure and compared them

with the results of a similar study the company conducted in 1990. In the earlier study, the reasons cited for CIO failure most often were that the CIO was an empire builder, was inflexible, wouldn't streamline and was out of touch with the company's business goals. In contrast, in 1998 the most frequent complaints were that the CIO doesn't fit in with the management team, is a poor listener—has an inability to pick the real priorities, lacks vision and can manage but can't lead. John J. Davis, president of the company, concludes, "Now that the CIO has made it to the top, he or she can fail for the same reasons as the CEO, CFO and the rest of senior management." What a privilege.

It's not shameful to admit that leadership is tough to practice; it's even difficult to understand. The bottom line is that almost everyone needs help to be an effective leader.

We've planned a series of features for our summer issues, beginning with this one, that we hope will shed light on the subject. What distinguishes this material is its specificity to the CIO role in the context of the enterprise. We're also grateful to have Warren Bennis aboard as guest editor throughout the summer. In his commentaries, he will provide perspective on each feature, drawing on decades of distinguished leadership research and practice.

In addition to the print material, you'll find more depth and a wide range of leadership resources on our Web site at www.cio.com/forums/leadership. And we invite you to interact with Bennis and veteran CIO leaders at our symposium in San Diego, from Aug. 15-18. (Please visit www.cio.com/conferences for additional information.) In the meantime, if you have leadership insights, concerns or experiences to share, please write to me or to letters@cio.com.

Richard Pastore

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In Box

WHO'S TO BLAME?

I read your In Box comments about limiting Y2K legal rights [CIO Section 1, April 15, 1999], and I adamantly disagree with your position that pending legislation "would protect those who have ignored Y2K."

In my company's Y2K statement, we propose neither to assign nor to accept any liability. That's a fancy way of saying, "We'll fix our Y2K problems, you fix yours and we'll be partners in case something bad happens."

The legislation proposed opens the door for larger companies to devour smaller ones that can scarcely afford massive lawsuits. We're all in this together, and no one should be blamed for someone else's failure.

David Bilodeau

Senior Information Specialist

Fort Worth, Texas

David.J.Bilodeau@worldnet.att.net

I'm in *partial* agreement with you. While people should be held accountable for their negligence, the legal sharks are circling and something needs to be done to mitigate a legal free-for-all.

No doubt the House bill goes too far in eliminating first offense liability. If a credible, documented effort has been made to minimize Y2K impact, companies should have some shelter from civil penalty. But companies that would attempt to hide their negligence behind such protective laws ought to get everything the legal system thinks they have coming to them.

Tom Bellinson

CIO

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tbellinson@engsvcs.com

CHOICE WORDS

Daintry Duffy's "Office Speak" sidebar in "Cube Stakes" [CIO Section 2, April 15, 1999] claims to be a "glossary of new-age workspace lingo." Interestingly, a new meaning of an old term has appeared that can cause confusion. In olden times, the home office was a company's headquarters. In many places, it still is. But today, a home office refers to a workspace in a person's residence—quite a difference! Last week, I called

someone at her regional office and was informed that she was working out of her home office. I almost called the corporate headquarters. To avoid future mix-ups, I suggest we refer to a person's home office as their residence office, office at home or at-home office.

Steve Hendel

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CORRECTIONS

In "Wanted: ERPeople Skills" [CIO Section 1, March 1, 1999], we incorrectly reported the responsibilities associated with certain job titles at The Boeing Co. Materials processor requirements facilitators (formerly called expeditors) receive, store, inventory and issue production materials. Material planners manage the acquisition of manufactured parts and raw materials. Procurement agents select, negotiate and award contracts for the manufactured parts and raw materials.

We inaccurately listed the URL for JML Ventures Co. in "Sounding Off" [Trendlines, CIO Section 1, April 1, 1999]. The correct URL is www.jmlventures.com/modern-cadencelindex.html.

In "Time for a Y2K Audit" [CIO Section 1, May 1, 1999], we incorrectly reported Data Integrity Inc.'s location. The company is based in Waltham, Mass.

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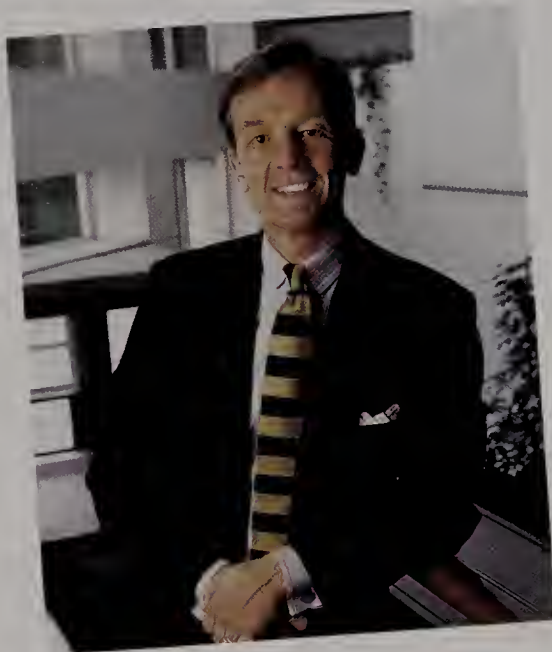
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Publisher's Note

Look around. Who are the great leaders you respect? What makes them great in your mind?

Leaders are bred not born. It is easier to teach leadership than to hope you pass it on genetically. And while the title of this magazine is *CIO*, it could just as easily be *CLO*, for Chief Leadership Officer. The men and women who regularly read *CIO* and visit www.cio.com are the leaders of the IT revolution.



Led by Rick Pastore, executive editor, we are pleased to bring you this issue of *CIO*, which kicks off a summer series of articles dedicated to IT-business leadership.

One of my favorite leaders is John Wooden, the former coach of the University of California at Los Angeles basketball team. As team leader, Wooden would never scout UCLA's competition. His reasoning? If he and his players determined the best plays and executed those plays, it wouldn't matter how the competition reacted—the play would work.

So too it is for you, the IT leaders of the universe. If you envision and then develop an unbeatable IT strategy—a strategy that must include the Web and its services—it really doesn't matter what your competition does. You will be too busy serving customers. And reaping profits.

Rick asked me to share a few words with you about IT leadership. For each letter of the word leadership, I've supplied the traits I have found in exceptional IT leaders. I am confident that if you emulate these qualities, you too will be successful.

Learning and listening never end.

E-business is everything; without a sound e-biz strategy, you will be history.

Attitude is key; life as a CIO is not easy—a can-do attitude will take you far.

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Honesty is the best policy.

Innovation and imagination are key ingredients that all great IT leaders share.

People are the business of IT.

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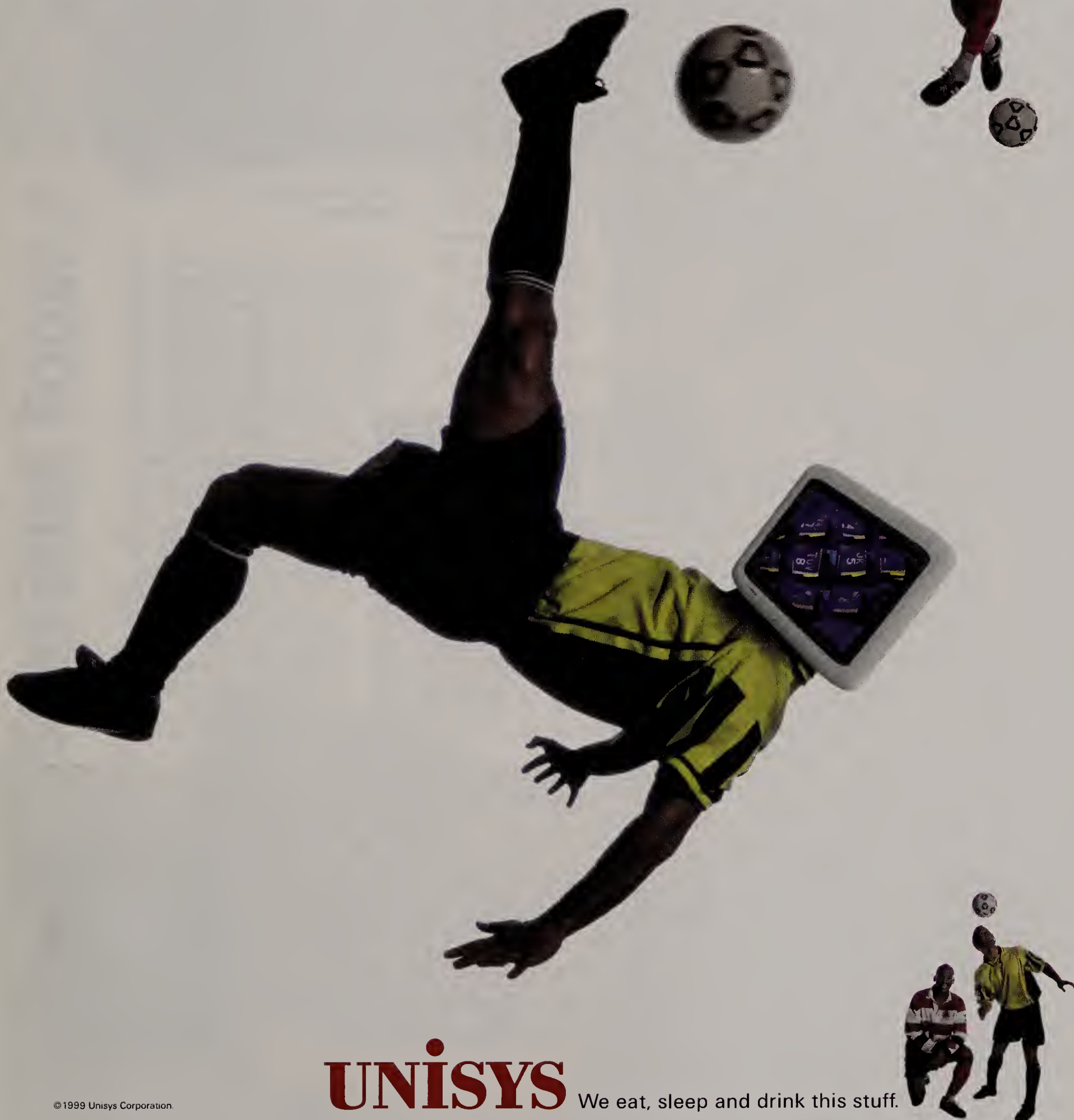
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Trendlines

NEWS, INSIGHT, HUMOR, REVIEWS

Edited by David Rosenbaum

Toys for the Boys

FATHER'S DAY Technology is great, but let's not be snobs and think that the only tech is silicon tech. Technology is also about making things better and more useful. We've put together a few Father's Day gift ideas with this theme in mind.

Face it. Digital photography isn't there yet, but it's close enough that the analog types have been inspired to refine what was already close to perfect—the film—and whack away at what wasn't—the size of the cameras. The latest film, called APS (for Advanced Photo System), is encased in a tiny, idiot-proof cassette that Dad never needs to touch, and it records exposure information about each shot to help the monkeys at the photo lab do a better job. APS cameras can scale down around the tiny film, and the Canon Elph 370Z (suggested retail price is \$500, but you can find it for a lot less) wraps it like a jewel, with a stainless steel case, stout and tiny buttons, and a sideways flash. And it all fits in your pocket.

Nature knew about this technology before we did: symbiosis—riding along on something that's bigger and stronger than you—can benefit both you and your ride. Behold the StarTAC Clip-On Mobile organizer that Motorola Inc. clipped onto the back of its StarTAC phones. The 2.3-ounce organizer (under \$250) lets people making calls view information and enter it into a calendar, a to-do list and a contact list with a stylus that also lets them tap and dial a name automatically. The removable



The Motorola StarTAC Clip-On Mobile Organizer

organizer disgorges its information to Dad's PC through a cord (like the Palm computer) and works with many different contact management programs such as Microsoft Corp.'s Outlook and Yahoo Inc.'s Web-based calendar and schedule service.

We hope Dad has faced up to the

The GK-2A pickup system for the electric guitar



The Canon Elph 370Z APS camera

fact that he won't ever sound (or look) like Eric Clapton, but he can still get excited about jamming with the rest of the guys in the old folks band. Fender Musical Instruments Corp. has put Roland Corp.'s GK-2A pickup system on the venerable and still cool Standard Stratocaster electric guitar so that the sounds can be fed into one of Roland's synthesizers to make the Strat sound like a sax, a zither or an oboe—or a dirty, old acoustic blues guitar. If the guys in the band are too tired to play and Dad's feeling lonely, the Roland-Ready Standard Stratocaster (\$799.99) can mix in some backing instruments.

—Christopher Koch

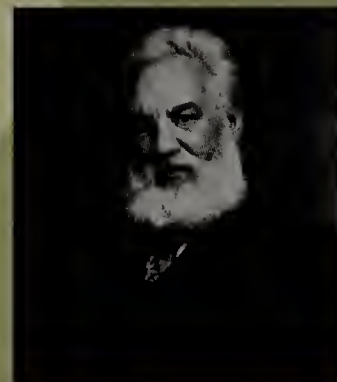
Telecommunications

Pop Quiz

What happened Aug. 4, 1922, the day of Alexander Graham Bell's funeral?

- A. Thousands of phones went dead.
- B. Henry Ford stopped the Ford assembly line.
- C. Bell's wife removed all the telephones from their home.
- D. Canada commissioned a statue in Bell's honor.

(Answer on Page 18)



CIO MAGAZINE'S ANNUAL SYMPOSIUM & AWARDS

100

Leadership & Innovation for the Future of the Enterprise



Experience Leaders:

Geoff Moore

Mike Hawley

Featured Presenters:

**Warren Bennis on
Leadership**

**Ed Yardeni on
Global Economy**

**Dr. Dean Ornish on
Longevity**

**Mike Vance on
Innovation**

**U.S. Senator
John McCain on
Commerce**



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SENATOR JOHN MCCAIN

AUGUST 15-18, 1999 • AGENDA HIGHLIGHTS

SUNDAY AUGUST 15

Registration

Riverwalk Golf Tournament

Enjoy a round on San Diego's newly redesigned championship golf course.

Café 100 Reception

Meet other participants and Symposium Partners in our informal living room.

MONDAY AUGUST 16

Opening Remarks and KnowPulseSM Poll

Gary Beach

Publisher

CIO magazine

Be sure your views are represented in this groundbreaking poll.

CIO 100 Introduction and Welcome

SYMPOSIUM MODERATORS AND EXPERIENCE LEADERS

Geoffrey Moore

Founder and President
The Chasm Group

Mike Hawley

Dreyfoos Professor of Media Technology
MIT Media Lab

Hawley and Moore will lead participants through a number of different learning experiences.

EXPERIENCE: MARKET ANALYSIS

The Gorilla Game: How to Pick the Winners in High Technology

Geoffrey Moore

Moore will highlight how CIOs can apply the lessons of the financial markets to the challenges of IT purchase decisions.

EXPERIENCE: ACHIEVEMENT

CIO 100 Honoree Presentations

The CIO 100 Special Issue will come to life through discussions with the following CIO 100 Award honorees who will share their winning strategies.

James Donehey

CIO & Senior Vice President
Capital One Financial Corporation

David Drew

Vice President, Information Technology
3M

Ross Holman

Vice President Systems
Southwest Airlines

EXPERIENCE: CEO INSIGHT

Tom Donohue

President & CEO

U.S. Chamber of Commerce

Donohue, as CEO, shares insights on how the Chamber works with the Fortune 1000 on IT issues before Congress.

EXPERIENCE: INDUSTRY BRIEFINGS

The Symposium Partners will lead interactive small group discussions on strategic business and IT issues.

EXPERIENCE: INNOVATION

Mike Vance

Chairman and Co-Founder

Creative Thinking Association of America

Vance will discuss how to develop cultures of continuous innovation and creativity.

Café 100 Reception

"I find no conference more relevant to the challenges I face as a chief information officer than a CIO conference."

Catherine Rodewald, Sr. VP & CIO, Amresco, Inc.

TUESDAY AUGUST 17

EXPERIENCE: EVOLUTION

Mike Hawley

Hawley will envision the next five years of IT evolution and revolution.

EXPERIENCE: LEADERSHIP

Leadership Challenges for the CIO

Warren Bennis

Founding Chairman

Leadership Institute

University of Southern California

Bennis will share his lessons on leadership for CIOs and lead a discussion on the challenges facing them.

LEADERSHIP PANELISTS

Ken Harris

CIO and Vice President

NIKE, Inc.

Chris Hoenig

Former Director

Information Management and Technology

US General Accounting Office

Patricia Wallington

CIO and Corporate Vice President (retired)

Xerox Corporation

EXPERIENCE: INDUSTRY ANALYSIS

Charles Phillips

Managing Director, Enterprise Software

Morgan Stanley Dean Witter

Phillips will engage participants on the shifts taking place in the industry — focusing on ERP and E-commerce.

EXPERIENCE: ROUNDTABLES

Editorial Roundtables

CIO editorial staff will lead breakout discussions on the following topics:

- After Y2K: Mopping Up and Moving On
- Recognizing and Communicating the Value of Your Investments
- The Staffing Crisis: Closing the Gap
- Developing Leaders: How to Identify and Cultivate Leadership in Your Organization
- Why Everyone is So Hot for Knowledge Management
- Success on the Web: How to Know When You've Got It and What to Do When You Haven't...
- Strategic Software Providers: Do They Really Deliver?

Café 100 Reception

CIO 100 Awards Dinner

Celebrate the CIO 100 Award honorees at a black tie reception and dinner featuring Chairman of the Senate Committee on Commerce, Science and Transportation, U.S. Senator **John McCain**.

WEDNESDAY AUGUST 18

KnowPulse Poll Results

Lew McCreary

Editorial Director

CIO magazine

EXPERIENCE: LONGEVITY

Opening your Heart Anatomically, Emotionally and Spiritually

Dean Ornish

Founder, President and Director

Preventive Medicine Research Institute

Dr. Ornish will explore economic and health policy implications for you and your company.

EXPERIENCE: GLOBAL ECONOMY

The Economic Consequences of the Y2K Problem

Ed Yardeni

Chief Economist and Managing Director

Deutsche Bank Securities

Yardeni will assess the likely impact of Y2K on our organizations and the economy.

Summary and Closing Remarks

Geoff Moore

Mike Hawley



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☐ **\$2,895 — Government/Military**

This fee includes your hotel for three nights. CIO will make your hotel reservations for arrival Sunday, August 15 and departure Wednesday, August 18. Additional hotel reservations are your responsibility.

☐ **\$325 — Companion Program**

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Trendlines

CAN: Computer-Assisted Nose

CD-ROMS Aromatherapists as a class aren't known for their technological prowess, but the discipline of healing physical and emotional ailments with essential oils derived from plants and herbs is pretty information-intensive. Enter "Essential Aromatherapy," a self-paced CD-ROM course developed by Essential Training Solutions Ltd. of Daventry, England. By covering the basics of aromatherapy in a well-planned if not terribly sophisticated

manner, the course offers a good model for designing self-paced training.

All too often, CD-ROM courses assume a working knowledge of computers. The introduction to "Essential Aromatherapy" begins—as it should—with a lesson to help you navigate the screen. Contrary to what many IT pros might think, mousing around a monitor is not an intuitive exercise for most people.

Then there's the content. By organizing the material into clearly comprehensible sections (the history of aromatherapy, an index of essential oils, a glossary, blending techniques), "Essential Aromatherapy" makes it easy to locate specific information. And the developers of the CD-ROM take full advantage of the computer by including links to cross-referenced materials, interactive quizzes and pop-up boxes pointing out related information in other sections.

Of course, good design is a

Answer to question on Page 16: A. In Bell's honor, all American Telephone and Telegraph Co. phones (all 13,000 of them) in the United States and Canada (where he had been a longtime summer resident) went silent for one minute.

SOURCE: U.S. DEPARTMENT OF DEFENSE'S BALLISTIC MISSILE DEFENSE ORGANIZATION AND THE UNIVERSITY COLLEGE OF CAPE BRETON



matter of function as well as form, and "Essential Aromatherapy" delivers there too. In less time than it takes the skin to absorb eucalyptus oil (from 20 to 40 minutes), a budding aromatherapist can discover that *lavandula angustifolia* (aka lavender) is a veritable wonder plant. The woody shrub with silvery-green leaves is used to combat a host of physical ailments including migraines, sunburn, acne, insomnia and sciatica.

Its developers created "Essential Aromatherapy" with Phoenix, an authoring tool from Pathlore Software Corp. of Columbus, Ohio. Perhaps the only shortcoming of this otherwise admirable and well-thought-out CD-ROM is the absence of scratch-and-sniff technology. —Megan Santosus

Of Dogs, Green Shoes and the Living Dead

HIGH TERMINOLOGY IT entrepreneurs love it when the venture capitalists come calling, but when they knock on your door will you understand what they're saying?

Scott Herhold in the "Good Morning, Silicon Valley" section of the *San Jose Mercury News* recently provided a glossary of venture capitalist-speak.

What They Say

I'm out of bandwidth.
He's a boat anchor.
Will the dogs eat the dog food?
A hot space.
A red herring.
A green shoe.
Blue sky laws.
A good athlete.
An elevator pitch.
Waking the giant.
The living dead.

What It Means

I'm exhausted.
He's holding back a company.
Will the customers buy the product?
A promising niche.
A preliminary prospectus designed to test support for an IPO.
Extra stock allotted to the investment banker to sweeten a deal.
State restrictions on IPOs.
A highly competent CEO with no experience in a company's field.
All an entrepreneur can tell a venture capitalist about a company in three minutes.
Talking to Microsoft.
Companies neither failing nor prospering.



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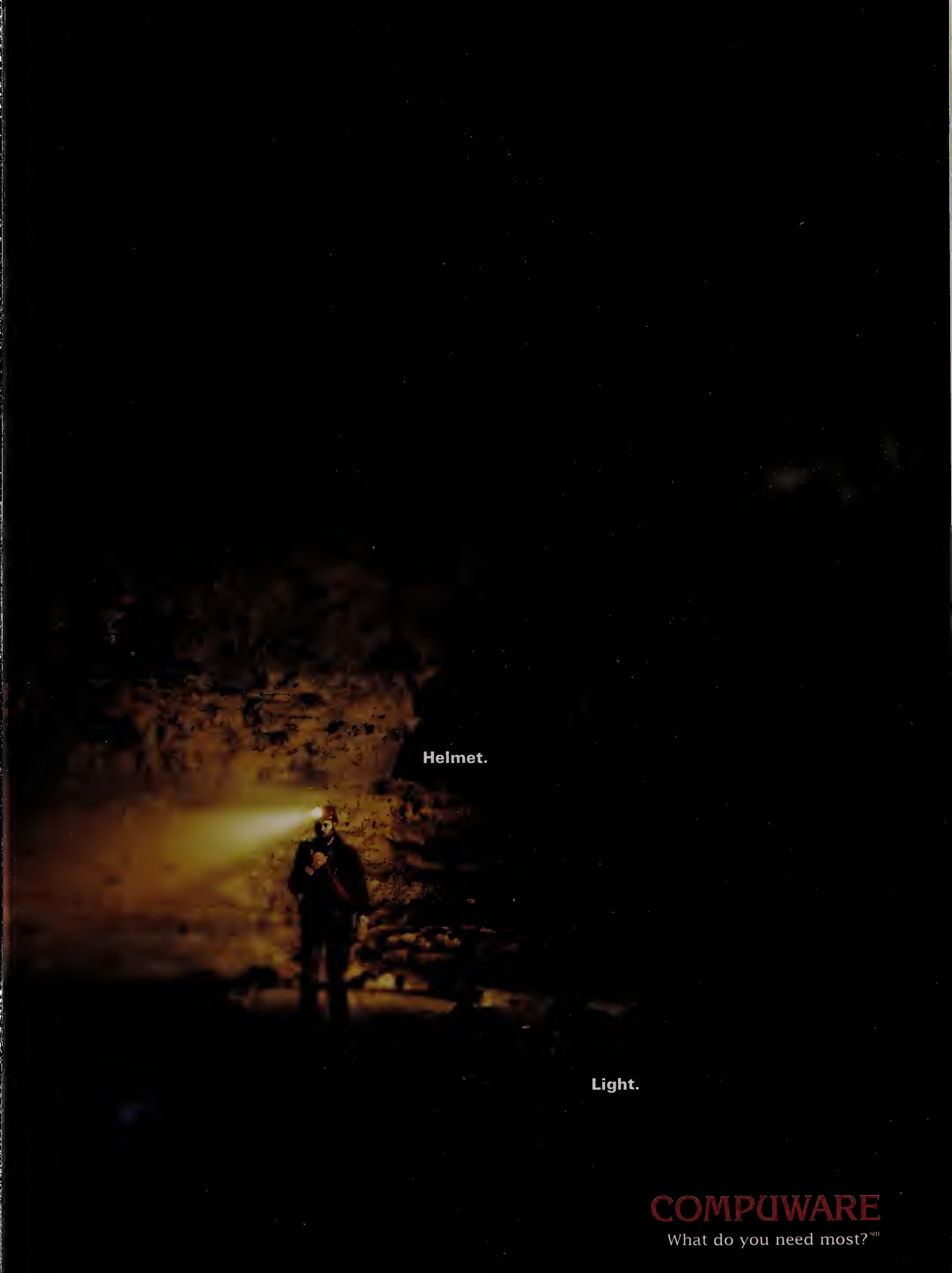
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Trendlines

It's Safer at the Top

LEADERSHIP The good news?

According to a recent survey of 650 CEOs and senior executives worldwide conducted by the Department of Information Systems at The London School of Economics, 47 percent said that their IT leaders play a prominent role in defining corporate strategy. And, by a vast majority, these CEOs believe IT will become ever-more central to their enterprises' future success.

The bad news?

The survey, commissioned by Compass Group, a management consulting firm based in Guildford, England, shows that a majority of these same executives believe that IT's actual contribution to the business to date has been minimal or non-existent.

The mitigating news?

Among those executives who say that their CIOs play a leadership role (rather than, say, simply delivering IT services at the lowest-possible cost), a majority maintain that IT is in fact delivering a business benefit right now.

The lesson learned?

The closer you get to your CEO, the better your prospects for continued employment.

For advice on how to be an enterprise leader, see our CIO Summer Curriculum, beginning on Page 34.

—David Rosenbaum

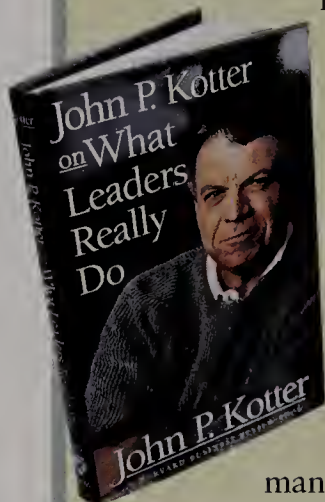
Off the Shelf

Welcome Back, Kotter

John P. Kotter on What Leaders Really Do

John P. Kotter, Harvard Business School Press, 1999; \$22.95

THERE'S NOTHING NEW IN KOTTER'S BOOK, BUT THAT'S NOT A RAP. THIS book, a collection of Kotter's previously published articles about leadership that first appeared in the *Harvard Business Review*, is more than an exercise in marketing. By packaging the articles in a single tome, the multifaceted nature of leaders and leadership emerges.



Early on, Kotter draws a distinction between managers and leaders: The former manage complexity and all its inherent processes, while the latter manage change. As change agents extraordinaire, leaders must above all create a sense of urgency. Accomplishing that often requires a mix of patience, tenacity, an iron will and an uncanny ability to communicate a clear and consistent message. Add a gift for persuasion, and you've got the very model of a well-rounded leader.

As Kotter demonstrates, most leaders have highly developed social skills. To bring about lasting change, leaders have many constituents. Not only do they need to sway employees but board members and stockholders as well.

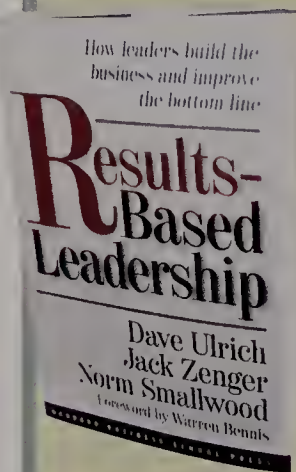
The book is thankfully short on theory and is instead filled with practical, often common-sensical, advice. For anyone who wants to be a leader when they grow up, Kotter's book is required reading.

New and Recommended

Ackoff's Best: His Classic Writings on Management, Russell L. Ackoff,

John Wiley & Sons Inc., 1999. Wit and wisdom meet commerce in essays by Ackoff, an architect, city planner, behavioral scientist, Wharton professor and all-world management guru.

Digital Capitalism: Networking the Global Market System, Dan Schiller, *MIT Press, 1999.* Is the Web an even more brutal iteration of Adam Smith's marketplace? Could be.



Walking the Talk

Results-Based Leadership: How Leaders Build the Business and Improve the Bottom Line

Dave Ulrich, Jack Zenger and Norm Smallwood, Harvard Business School Press, 1999; \$24.95

CORPORATE LEADERSHIP ISN'T ABOUT vision; it's about results. All too often, executives wax poetic when it comes to mission statements but fail to make the connection between their words and their actions. This book, by a trio of experienced human resources and management consultants, is designed to help managers walk the talk.

There are no earth-shattering epiphanies here, nor overly hyped claims. The most useful materials in the book are the charts and figures that provide readers with practical, focused information and advice. For example, the strategic clarity quiz the authors devised is a quick yet comprehensive exercise that readers can use to help fine-tune their organizations' goals.

—Megan Santosus

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Trendlines

The Lowdown on the High-Tech Museum

VALLEY NEWS Last Halloween, the city of San Jose, Calif., the putative heart of Silicon Valley, unveiled its revamped downtown Tech Museum of Innovation (www.thetech.org). Around the corner from its old, 20,000-square-foot digs on West San Carlos Street, The Tech (as the locals call it) is a brand-new, three-level, 112,000-square-foot building on South Market Street painted road-pylon orange by architect Ricardo Legorreta (who calls the color mango). The museum overlooks Cesar Chavez Plaza, where the pueblo of San Jose was founded in 1777, but it certainly represents the Silicon Valley of today. As a summer vacation destination, however, it gets mixed marks.



Five Reasons to Visit the Tech

- 1 The Tech's two-story Imax theater shows a revolving selection of 70mm films on its screen, a dome 82 feet in diameter.
- 2 It emphasizes hands-on experiences. You can surf the Web, chat with avatars of other visitors, and create audio and video clips of yourself.
- 3 The Tech shows what happens when an earthquake hits buildings constructed of brick (very bad) and what happens when it strikes reinforced concrete (pretty good). (The Tech is only about five miles from the San Andreas fault.)
- 4 Its biotech area lets you use DNA to help solve a murder and see what your own hand looks like to an ultrasound device.
- 5 The Tech is just around the corner from the San Jose McEnery Convention Center, so it provides a convenient break from dull conferences.

Five Reasons to Avoid the Tech

- 1 Since there are only one or two stations for each experience, visiting on weekday mornings when school groups appear and on weekends guarantees a long wait.
 - 2 The Tech still seems to be in shakedown mode. An underwater tank that allows you to manipulate a remotely operated vehicle has already sprung a leak; during my visit, several other exhibits were either malfunctioning or being retooled.
 - 3 Older technologies such as a Frogger game on an Atari tape cassette were the best exhibits, but they are not part of the permanent collection because the Tech is focusing on the future.
 - 4 Tech-savvy CIOs visiting sans kids may end up yawning. There's not much that could be called sophisticated.
 - 5 The X-rays in the medical sciences area show real broken bones. Ick.
- Howard Baldwin

The Pig's Still Dancing

A YEAR AGO TODAY CIO praised Republican presidential hopeful Arizona Sen. John McCain's Web site in Section 1 of the June 15, 1998, issue (Trendlines, "Capital Improvements, Online"). We thought the "pork barreling" pig who rolled a barrel across the bottom of the screen

and guided citizens to stories about government waste, was a refreshing change from the sober tedium of most Senatorial and Congressional sites.

We recently discovered that not only is the pig still rolling that barrel across McCain's site, but many other pols have spiffed up their pages. Rep. Dick Arme of Texas used a Tax Season Survival Kit to

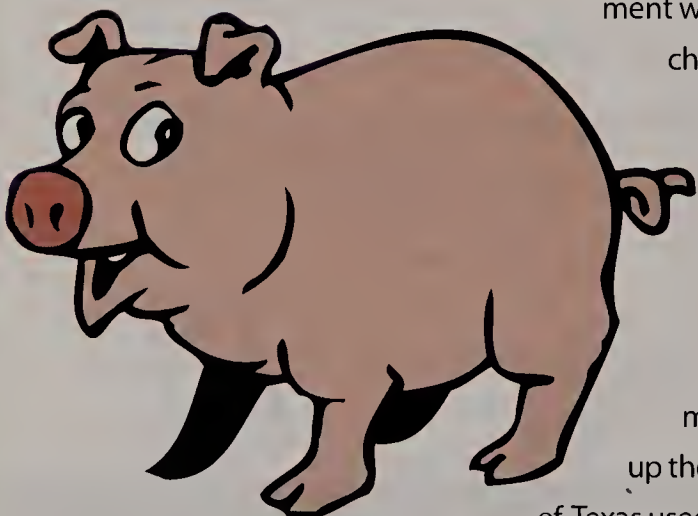
diagnose symptoms of tax-season shock. He recommended first aid tax reform and offered his constituents a tax game called Self-Diagnosis.

Sen. Wayne Allard's site has an interactive map of Colorado. Click on a county to find out when Allard will be in town, and you'll also get the time, place and date.

Chris Casey, technology advisor to the U.S. Senate's Democratic Technology and Communications Committee, says that although more and more legislators are thinking Web when it comes to generating support for their bills, "Congress is never going to be at the leading edge" due to technological (the legislators are limited to one institutionwide server run by the sergeant-at-arms) and budgetary (webmasters are not a hiring priority) constraints.

To locate your senators' or representatives' sites, go to www.senate.gov or www.house.gov.

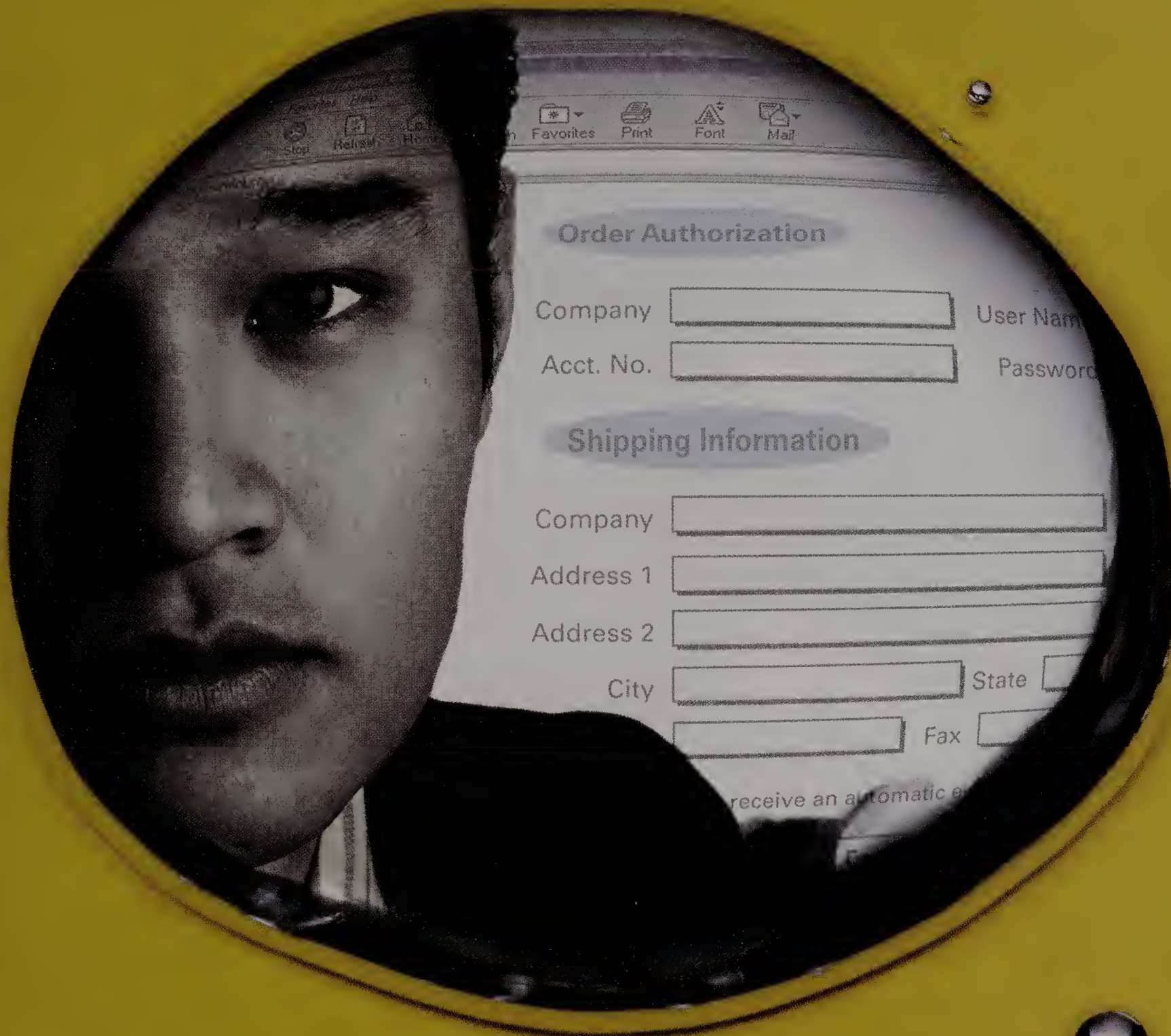
—Lynne Zouranjian



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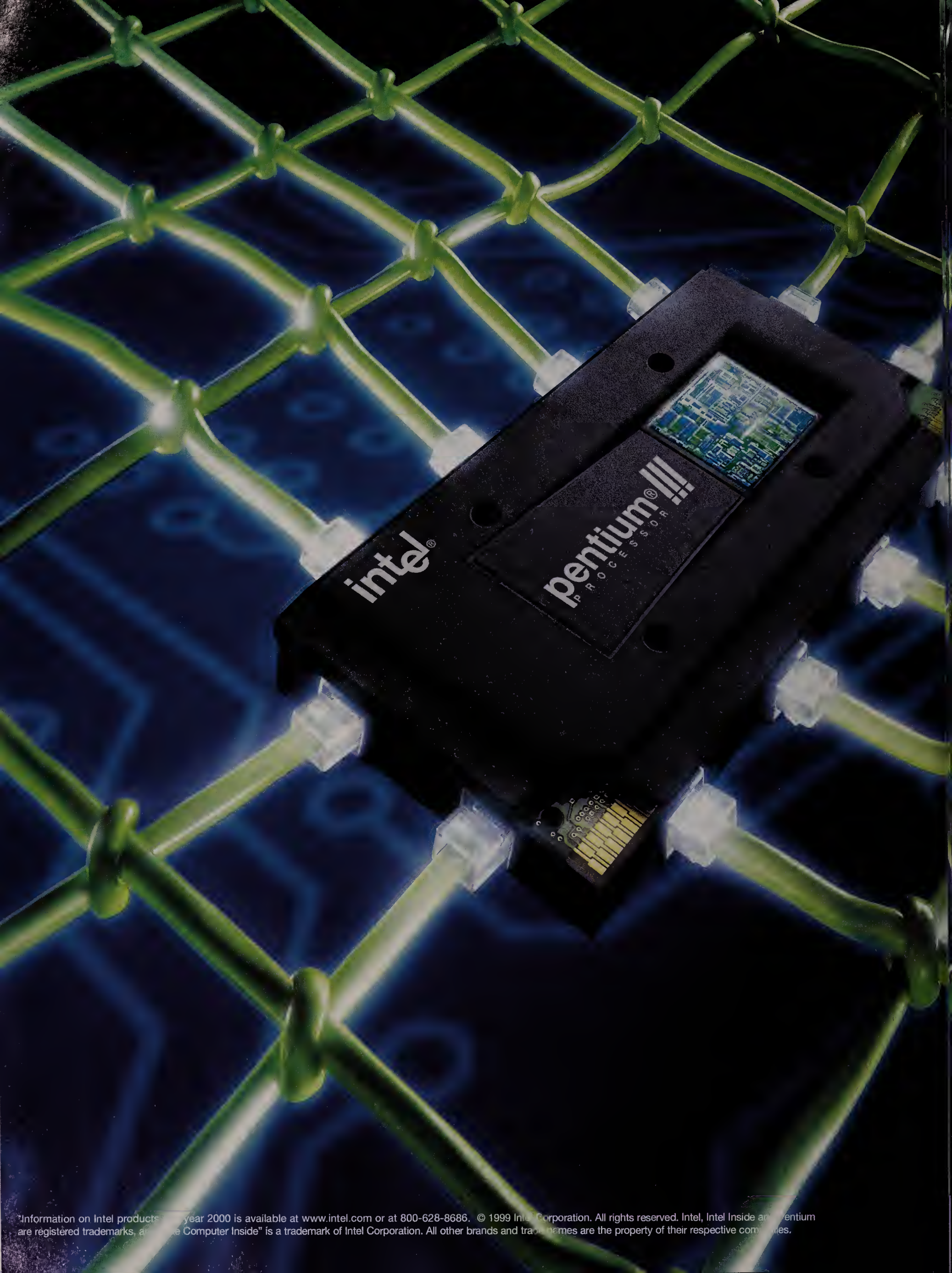


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Not to the Swift

Looking to get ahead in your career? The best strategy just might be to stay put.

BY MATT VILLANO

WHEN IT COMES TO changing jobs, June Drewry is a seasoned veteran. The 49-year-old Drewry has been the chief knowledge and technology officer at Lincoln National Corp. in Ft. Wayne, Ind., a CIO with Aetna Inc. in Hartford, Conn., and a senior vice president in the IS department at MBL Life Assurance Corp. in Newark, N.J. She recently moved on again, to the position of executive vice president

and CIO for Aon Group, a family of insurance companies headquartered in Chicago. The new position is her fourth CIO job in the past 20 years.

Drewry typifies the modern CIO—someone who grew up in the '60s, earns a six-figure salary and changes situations roughly once every five years. Last year, in an annual survey of more than 500 IT executives conducted by Computer Sciences Corp., nearly 40 percent of the respondents reported that their CIOs had been replaced since 1996.

While the numbers indicate that CIOs are moving around at a hectic pace, many lament that their only direction is horizontal. If they wish to move up the career ladder, it seems that CIOs first must find executive-level positions outside IT.

"Because other executives are usually picked from a different pool, few CIOs are able to move into an executive position outside IT," says Mark Polansky, managing director of the IT practice at Korn/Ferry International, a New York City-based executive search firm. "If you're a CIO and you want the chance to be something more, you might think a certain amount of moving around is necessary to provide a feeling of advancement."

Polansky explains that CIOs

are hired to fulfill a specific mandate (set up an intranet, implement an ERP system) and meet the concomitant technological challenges. Once a CIO has addressed those issues, she can stick around and wait for the next major technological challenge or she can move on.

This pattern of switching jobs every five years has become the most common way to manage an IT career, but it's not the only way. Just ask John Cross. Cross spent 33 years in the IT department at BP Amoco PLC, 10 of them as CIO. This spring, he bid farewell to the only professional home he had ever known, crossed the Atlantic and started over as an executive vice president with AppNet Inc., an Internet consulting and services startup in Bethesda, Md.

Cross says he was able to land the job because his tenure at BP gave him the breadth of experience and connections that AppNet was seeking. Today, by not subscribing to the job-hopping tendencies of his peers, Cross is exactly where many of them would like to be: an executive outside IT with an equity position in the company.

The Rabbit Paradigm

June Drewry spent 12 years with her first company, 5 years with her second and 3 years with her third. She says each new job was too good to pass up and that each offered more money, visibility, responsibility and learning opportunities than the previous one. With the exception of her most recent move, Drewry candidly characterizes her career decisions as impulsive.

"All I ever asked myself was, 'Are you having fun? Are you learning something new? Are you making a difference?' If the answer to any of those questions was no, then I knew it was time for a change."

What motivated Drewry to leave Lincoln National earlier this year, however, was different from what had prompted her to leave her CIO posi-





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Executive Counsel

tions at the other companies. The company had hired a new CEO. Last winter, after nearly three years working on company strategy, Drewry found herself limited to an oversight role. That was reason enough for her to find new digs.

"When leadership changes, the role of technology changes too," she says. "As a CIO, you've got to be able to adapt and make the moves that are best for you. Because everything in this industry changes overnight, you've got to ask yourself if it's worth putting so much into a job."

Professionals in every industry, including some of today's highest-ranking executives, frequently ask themselves similar questions about their jobs. According to Lance Eliot, a former CIO who is a columnist on IT career issues, all this soul-searching often results in job changes based on whims or gut instinct. In some cases, Eliot says, people second-guess their decisions so much that they jump at certain opportunities without considering the professional ramifications. Considering how much is at stake in today's IT environment, he adds, the best CIOs are those who can string together a number of job changes into meaningful careers.

"It strikes me that the CIO volatility question seems to have an unstated and underhanded premise: generally, that there must be something wrong with the [current] crop of CIOs because they keep moving along," says Eliot, president of Eliot & Associates, a consulting firm in Huntington Beach, Calif. "If you consider overall executive turnover, the external environment facing companies today, the difficulty in creating competitive IT systems, the pace of change in new technology and the normal push and pull of companies deciding what they want, it's a wonder the volatility isn't more pronounced."

A Tortoise's Tale

John Cross says that a number of factors contributed to his decision to remain at BP: consistent technological challenges, reasonable pay and an excellent working environment. He did get job offers from other companies, and he admits that he'd sometimes daydream about working somewhere else for millions more than what he was earning at BP,

but Cross stuck it out for 33 years. And when he finally left this spring, he was exactly what AppNet was looking for in a senior-level executive.

"They wanted someone with hands-on business experience and were shocked to see all that I had done at BP during that time," says Cross, 56. "That was why I stayed at BP for so long. Even when times were tough, I knew the opportunities I had there far outweighed the opportunities I'd have elsewhere. I wasn't about to leave for just anything."

Before becoming BP's CIO, Cross served in nearly a dozen jobs, some IT-

fort and security of a major oil company backing me every step of the way. Throughout my career, every time I considered moving on, they were able to find something new to throw my way. That was a big part of my decision to stay as long as I did."

According to Cross, technology was only one component of his happiness at BP. Cross compares being a member of the company's senior executive team to being "a member of a nice club." The entire culture, he says, was one of which he was proud to be a part. Cross recalls that in one of his first weeks as CIO the

"All I ever asked myself was, 'Are you having fun? Are you learning something new? Are you making a difference?'"

—June Drewry, CIO, Aon Group

related, some not. He started with the company in 1966, first as an economist in the market economics and planning department, then as an operator in the data processing department, and next as a programmer in advanced software development. After returning to IT from a stint on the business side, in 1988 Cross was tapped as CIO of the Exploration and Production Division, one of BP's three business units. Finally, in 1993, he was promoted to CIO of the entire company, overseeing more than 3,000 employees.

BP has long had a reputation in the oil industry for investing heavily in technology. That commitment to innovation was evident in the late '80s when Cross took over IT. From 1988 to 1993, the company embarked on a massive switch from a mainframe to client/server technology. Other CIOs, once they had masterminded such a transformation, might have slipped on their traveling shoes—but not Cross. Three years after he set up the company on a WAN, he embarked on a huge project to base its networking on the IP protocol and begin a number of intranet projects. He says that this constant flow of opportunities to work with new technologies was the job's biggest benefit.

"We were always on the forefront of software development for our industry," he says. "On top of that I had the com-

CEO took him aside and assured him that he would be an integral part of the company's business team. It made Cross feel valued and trusted. For more on Cross's leadership views, see his comments in "The Call to Enterprise Leadership," Page 50, and "Stranger in a Strange Land," Page 38.

If that weren't enough of an incentive to stay put, the company offered Cross the opportunity to enroll in MBA courses and in various executive development programs. "They took a view that one of the challenges for an organization like ours was to foster a feeling of everyone being a manager of the business," Cross says of the company's brain trust. "Their desire to have me become more of a businessman kept me interested in spending my career there. There were times when IT was at a standstill, but at those times there was always something happening on the executive level that made the job worthwhile."

Although Cross knew he was earning much less at BP than he could have earned as a CIO in the United States, he says the pay was sufficient to keep him satisfied. Top dollar was not as important to him as the opportunities for professional and personal development. "To a point, I thought that it would have been silly to move on to another CIO job for a few thousand dollars more each year," he says. "While money is important, if

you're earning a comfortable wage it doesn't make that much difference. Did I think that more money would have been nice? Of course. Was it cause enough to throw away everything else? Not for a second. I knew that when I left BP, I'd be leaving the CIO role for good."

Winning the Race

In the end, Cross did just that. AppNet approached him with a job offer in September 1998 and, after years of turning down positions, he finally accepted one. Today Cross is responsible for developing a strategic Internet consulting business, helping build strategic business relationships and integrate company acquisitions, and supporting key major account initiatives. It is a position with a salary that enables him to leave, as he puts it, the "income earners" and join the "wealth creators."

At a time when most CIOs move around as often as free-agent athletes, Cross says it's telling that what AppNet

officials found most appealing were his senior-level management experience and the network of relationships he'd developed in the IT industry and CIO communities, thanks to his longevity at BP. This, he adds, demonstrates that while an increasing number of CIOs make a practice of job-hopping, there's also a payoff to staying put.

As for Drewry, she says that the ideal career is one that enables her to solve problems and to meet ever-expanding technological challenges. If that means moving from one place to another, she says, so be it.

"It used to be that if you had lots of jobs on your resume, that meant you couldn't hold a job," she says. "Now, I think it's almost a detriment to have only one job on there. Moving around gives you the opportunity to gain knowledge from different places about a bunch of things. I wouldn't say my goal is to keep moving or to stay put. My goal is to learn new technologies

and help the company I'm working for. To me, longevity isn't nearly as important as that.

"Nowadays," she continues, "it's up to each person to manage his or her career. People have a right and an obligation to look for themselves. When I'm thrilled with my situation at a company, then I'm not going to be out there looking. When I'm not thrilled with my situation, you can bet I'm looking every day," she says.

"There are dozens of ways one can go about managing his or her career," Cross says. "Who knows if I would have been given the same opportunity [at AppNet] if I had done something differently? Given the same circumstances, every CIO would make a different choice. I'm happy with where I am today. Regardless of how I've managed my career, that's all that really matters." **CIO**

Matt Villano is a freelance writer based in New York City. He can be reached at mjv@whalehead.com.

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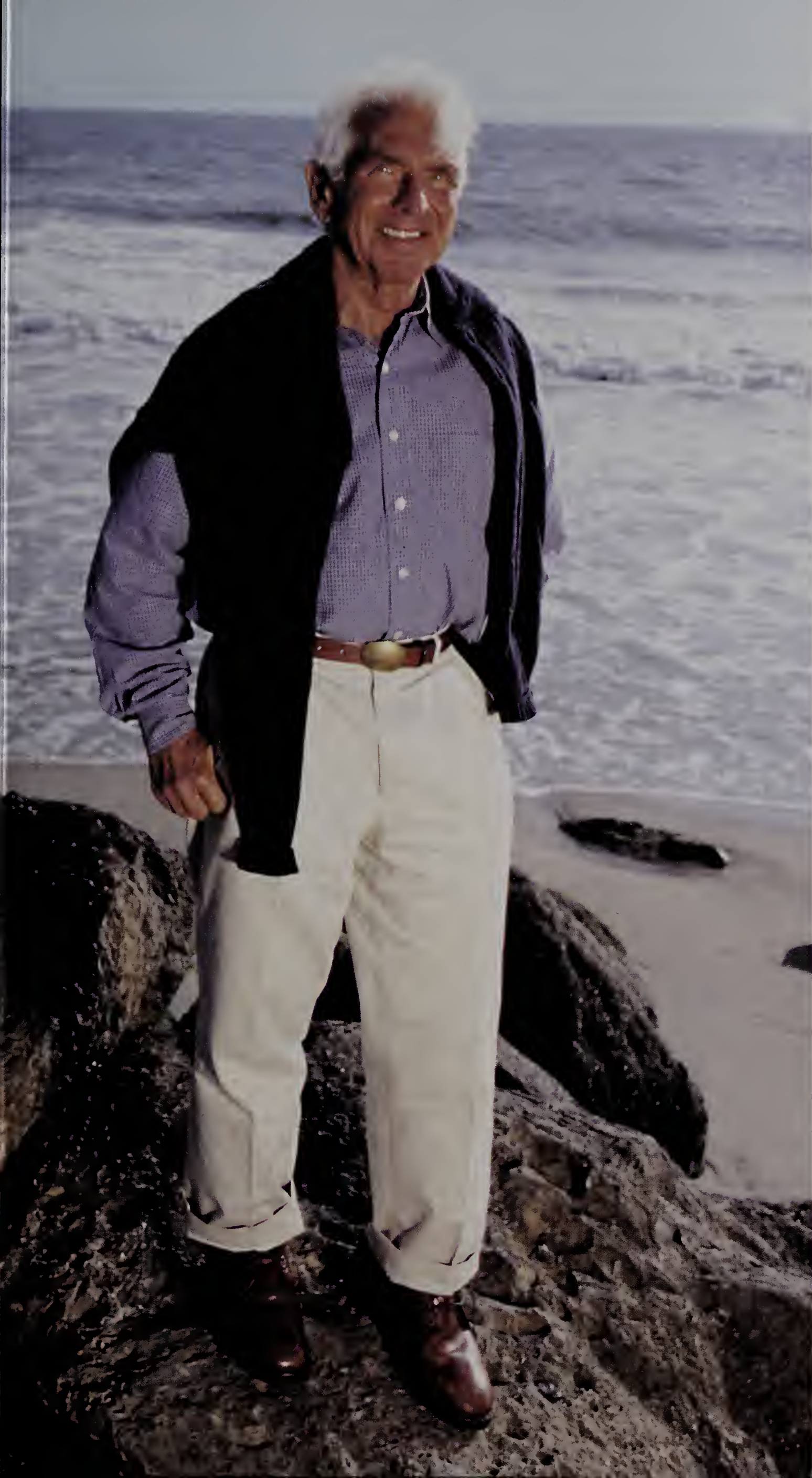
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S O L U T I O N S

Lessons in *Leadership*

BY WARREN BENNIS

When CIO approached me with an idea to present a series of leadership articles in its summer issues, I was intrigued enough to sign aboard as guest editor, mainly because I'm worried about the chief information officer. In the realm of enterprise information and the systems that generate, move and manipulate it, lackluster leadership has never been more potentially lethal.



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Getting a Grip

On Our Web Site

For more on leadership, visit the **Leadership Research Center** at www.cio.com/forums/leadership. You'll find an array of related material including

- A self-scoring leadership test
- Practitioner advice on CIO leadership
- Excerpts and essays from Warren Bennis
- Warren Bennis's annotated reading list

The Internet has profoundly changed everything, and the role of information in the new economy is critical to the survival—not just the success—of any institution. If an organization wants to still be in the phone book in 2002, that realization has got to sink in now.

In the new millennium, the major challenge for leaders will continue to be releasing the brainpower of the workforce. Competitive advantage will depend on leaders' ability to create the social architecture capable of generating intellectual capital, which is the engine of growth,

productivity and profits. It's true that information systems are the conduits for intellectual capital. But that does not mean that you, the CIO, are merely the chief traffic cop and maintenance person. With your peers and bosses on the executive team, you have an obligation to envision, promote and execute the how, where, when and sometimes why of harnessing intellectual capital.

Unfortunately, times are tough for leaders. I've been studying, writing about and consulting on leadership for decades, and I believe the problems

facing today's leaders are more daunting than ever before. Whether the task is building a global business or discovering the mysteries of the human brain, there are simply too many problems, too many connections to be made, too much blurring, spastic hyperturbulent change for any single solution to work. Or any single leader to solve. As I argued in a recent article in *Organization Dynamics*, the Lone Ranger hero-leaders of today, the Jack Welch and Michael Eisners, will need to become connoisseurs of

talent, more curators than creators, in the business world of tomorrow.

You can bet the answers to every leadership problem will not be found within the pages of business books, and neither will they be found in CIO's leadership curriculum. What we're offering is a framework for introspection on what it takes to be an enterprise leader in your environment. We chose the summertime in hopes that in this relatively slow corporate season, you will actually have time to think about leadership (although this is admittedly an American-centrist view; it isn't summertime everywhere in the world).

Relationships, positioning, politics and the unconscious conspiracy of turmoil, inertia and fear that hold us back: These are some of the topics that CIO has examined in the pages that follow. I'll offer my perspective at the end of each article and tie the indications together. Please read these articles, by all means visit CIO's leadership center on the Web (www.cio.com/forums/leadership) and come talk with me and others at the CIO-100 Symposium on leadership and innovation in August. But most of all, for your own sake and that of your enterprise's, take time to consider. Compare your actions with your vision of leadership. Are you the leader you want to be, can be, need to be? Think about it.

—Warren Bennis,
University of Southern California

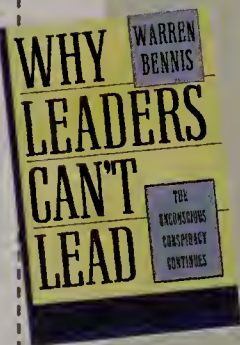
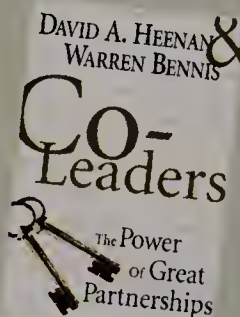
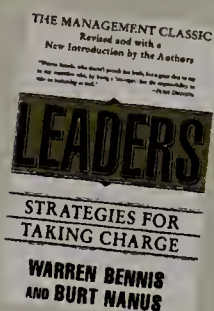
Warren Bennis's Biography

Warren Bennis is university professor and distinguished professor of the Marshall School of Business at the University of Southern California and a consultant to multinational companies and governments worldwide. He's

authored such seminal leadership books as *Why Leaders Can't Lead*, *On Becoming a Leader* and *Organizing Genius: The Secrets of Creative Collaboration*. His latest book, co-authored with David Heenan, is *Co-Leaders: The*

Power of Great Partnerships (John Wiley & Sons Inc.). Bennis has been an advisor to four U.S. presidents, served as president of the University of Cincinnati and, in

the mid-1960s, predicted the inevitable demise of communism and the bureaucratic organization. At age 19, he was the youngest U.S. infantry officer to serve in the European theater of World War II.

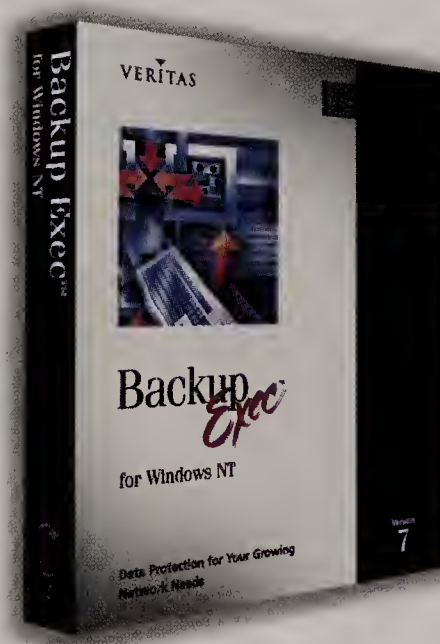


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CASE STUDY, PART

1

Stranger *in a Strange Land*

For CaliMed CIO David Shepard, a new CEO brings a seat at the boardroom table. His new role as an enterprise leader comes with great rewards—and great risks. How will he navigate these unfamiliar waters?

BY RICHARD PASTORE

THE CIO PROFESSION HAS WON A PERILOUS VICTORY. CHIEF INFORMATION OFFICERS have earned the right to be regarded as enterprise leaders transforming the business and steering the company to new and vital destinations. Enterprise leadership now comes with

the CIO title. But with that mantle of leadership come thick new folds of complexity and uncertainty.

Unfortunately, experience running an information systems organization does not guarantee success in enterprise leadership. A credibly run IS group is only a ticket to a seat at the executive table. Once seated, the CIO has to change; even his thought patterns must flow in new channels. Within an IS department, there's a technical right and

wrong. The program either works or doesn't work. But enterprise leadership functions within a miasma of maybes, as politics and personalities work to obscure the best course of action. How can CIOs cut through the murk to influence and inspire people who don't owe them allegiance? What are the necessary tools, skills and disciplines? How do they avoid

the traps and apply their expertise?

It's not easy for any executives to ask these questions, to admit their vulnerabilities and their need for guidance. However, we know many CIOs share these concerns, so we have addressed several of them in this three-part fictional case study, which will run throughout our summer issues. The scenarios, though simplified, depict the realities of leadership. David Shepard, a newly appointed CIO at a fictional pharmaceutical company that's on the ropes, has a small window of opportunity to prove himself an enterprise leader. He's got the guts to admit he doesn't have all the answers, and he's tapped into his network for help. Guiding him and the reader is CIO's leadership faculty of IT veterans—John Cross, Christopher Hoenig and Patricia Wallington (for their credentials, see "Meet Shepard's Coaches," Page 43).

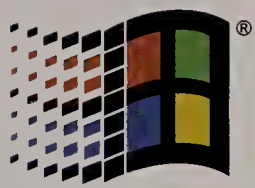
Part 1 of the case study focuses on relationship-building, an art that's fundamental to successful leadership. Can our CIO build effective relationships with his executive team while navigating a political minefield that threatens them all? Read on and find out.

Reader ROI

READERS OF CASE STUDY, PART 1, will learn how to

- ▶ Reinvent themselves as enterprise leaders
- ▶ Identify and support allies
- ▶ Recognize and disarm enemies
- ▶ Build relationships within the leadership team





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A CIO to the Rescue?

IN HIS EIGHT YEARS AT CALIMED, David Shepard had never been in the 14th-floor executive conference room. In fact, the last time he'd been on the floor was six months ago when he gave an e-mail training session to the recently departed CEO. The crash course in getting wired hadn't paid off; the board forced the CEO to retire a few months later.

Shepard, summoned by Maureen Carleton, the new CEO, found himself seated at the boardroom table with a handful of other CaliMed officers. Shepard's nemesis, Pete Lucibelli, was

there. Lucibelli had made a habit of bypassing the IS department, bringing in his own technology for his sales and marketing group while paying little heed to Shepard's IT architecture standards. Also at the table was Chief Operating Officer Robert Matson, a CaliMed veteran. Even though Shepard officially had reported to the comptroller, it was Matson to whom he usually turned. Now his friend was in an awkward position, apparently passed over for the top job but asked to stay on for "operational continuity."

Matson looked uncomfortable, but Shepard considered himself easily the most nervous person in the room. He had been CIO for three days, reporting

directly to Carleton, and Carleton, accustomed to the bleeding-edge technology of the biotech sector where she came from, wanted Shepard to use IT as a competitive weapon in his new role as member of the leadership team. She had explained that she'd promoted him from IT director because he was adept with technology and knew the company's business processes—advantages she couldn't get from an outsider or a CIO candidate with only a business background.

She was right about his strengths. He knew IT and its application cold. But he still felt ill-prepared to be a peer executive leading the company.

The meeting began abruptly as Carleton outlined the basics of her turnaround strategy. Actually, it was her longtime associate Richard Pepe, CaliMed's new senior vice president of strategy, who did most of the talking. And it was an impassioned speech. CaliMed was being dragged down by its low-payoff protocol-development partnership with health-care providers. To put its resources into new opportunities, CaliMed needed to cut its losses and pull out of the venture, Pepe said.

Shepard winced. The knowledge network that IS had built for these facilities to share treatment data had been a breakthrough IT accomplishment. Several health-care companies had asked to study and benchmark against it. Now it was being discarded. And its creator, Network Manager Greg Devlin, would probably follow it out the door in frustration.

On top of that, IS was three months and several thousand dollars into development of a second generation of the network, under the co-leadership of Devlin and McEarnst & Co. consultant Roberta Sedaille. This would have linked providers to their affiliated private practice physicians through a secured extranet.

Pepe outlined the second piece of the strategy: broader, faster revenue streams. CaliMed's drugs were aging; the company needed new high-margin products fast. Not surprising, given their background, Carleton and Pepe wanted to acquire boutique biotech and biogen companies to gain access to products in development. (Also not surprising, they'd gotten rid of CaliMed's head of

Company Backgrounder

CaliMed: Turnaround Plan

Company: CaliMed Inc., a medium-size California-based pharmaceutical company.

Competitive climate: CaliMed has lost money in five of the last six quarters. Its rivals are getting bigger and stronger by acquiring other pharmaceutical companies and increasing the number of new drugs in their pipelines. CaliMed's product base, on the other hand, is among the most aged in the industry.

Obstacles: CaliMed's attempt to boost sales through partnerships with health-care providers has been a failure. The company teamed with hospitals and long-term care facilities to develop disease-management protocols. CaliMed expected the use of these protocols to lead to more prescriptions for CaliMed medications. But protocol development is proceeding slowly, and physicians are resisting the protocols (which they regard as "cookbook medicine").

Recovery strategy: The company's board of directors has decided on a strategy to stem the losses and to catch and surpass the competition. The turnaround plan is three-pronged: kill unprofitable alliances, jump-start product development through new acquisitions and create new revenue opportunities—all the while adhering to a conservative budget.

Actions: To spearhead the changes, the board replaced CaliMed's longtime CEO with a new executive from outside the company. New CEO Maureen Carleton, most recently head of a small, fast-growing biotech firm, believes that information technology must provide a competitive advantage—a stark contrast to the outgoing CEO who saw IT as a support function. One of Carleton's first acts is to elevate CaliMed IT Director David Shepard to the new position of vice president and CIO. She has made it clear that she expects Shepard to be an enterprise leader.

Meet Shepard's Coaches

IN EARLY 1999 John Cross retired from his position as head of IT at BP Amoco PLC. Beginning in 1990, Cross presided over a radical corporatewide transformation, cutting IT costs by 50 percent while implementing a full-scale client/server migration. In the process, he changed the core mission of IS from providing transactional support services to acting as a strategic business partner. Cross was named by *CIO* as one of the decade's 12 most influential IT executives (see "Hall of Fame," *CIO*, Sept. 15, 1997). He is now an executive vice president with AppNet Inc., an Internet consulting and services startup in Bethesda, Md.



AS DIRECTOR FOR information management and technology issues at the U.S. General Accounting Office, **Christopher Hoenig** was responsible to Congress for \$25 billion in federal IT spending. He led a historic reform that for the first time brought private sector best practice principles (and the CIO position) to the federal government. He has also been an IT management consultant with McKinsey & Co. and is the author of a forthcoming book from Perseus Books based on a decade of research on world-class problem-solving and leadership techniques for the knowledge age. He is now CEO of Exolve Inc., a Washington, D.C.-based consulting firm.



IN 1999 Patricia Wallington retired as Xerox Corp. corporate vice president and CIO. At Xerox, Wallington forged a close relationship with CEO (now Chairman) Paul Allaire and established a corporatewide leadership training program. One of her biggest accomplishments was an outsourcing arrangement that reduced Xerox's IT costs and enabled development of a new global strategy, IM2000. In 1997 Wallington was inducted into the Women in Science and Technology Hall of Fame and named by *CIO* in the Sept. 15, 1997, issue as one of the 12 most influential IT executives of the decade. Now based in Sarasota, Fla., Wallington is consulting part time for Xerox and others.

product development and were now trying to recruit someone from another pharmaceutical maker.)

But new products in the pipeline wouldn't be enough, Pepe added. CaliMed needed a more rapid rollout process to move products through their clinical trials faster than their competitors did. And the company needed to explore new markets and new delivery mechanisms. One of Pepe's ideas was to bypass pharmacies and go right to the public for nonprescription products such as CaliMed's herbal line.

Shepard found himself thinking, How can we possibly fund all this?

Carleton spoke up. "We'll borrow to fund the acquisitions. The rest we'll have to accomplish on our internal budget—which will be the same as last year's."

Great, thought Shepard. She can read minds too.

Shepard wanted to make the most of this opportunity, but he knew Carleton wouldn't have much patience with him. But how could he work with her when he barely knew her? And what would happen when she started talking to Lucibelli? He'd probably tell her to outsource, something he had proposed before.

On the other hand, Shepard's IT department was clearly doing well. The

numbers were high on the last two user satisfaction surveys. His staff turnover matched the industry average (at least for now, he thought, picturing Devlin, his network manager, walking out the door).

But the efficient, effective IT organization he'd built was just table stakes now. The credibility it provided him simply allowed Carleton to give him the benefit of the doubt.

That night, Shepard made a call to a friend, Alana Jones, a partner at an executive search firm. Until a couple of years ago, Jones was CaliMed's HR director. She was very connected. Maybe, Shepard thought, she could give him the scoop on Carleton and how to handle her.

Jones didn't know anything about the CEO, but she quickly pinpointed Shepard's problems. His priority right now was relationships. To have any chance of being an effective leader, he first had to work out his relationships both with the new executives and the old. With whom should he ally himself? How should he handle the politics? What was the best way to reach his new boss? How would his promotion affect his relationships with his IT staff?

Jones suggested he tap his network for proven leaders and "go get some coaching."

Help Is on the Way

THE CONFERENCE CALL IN Shepard's office went off without a hitch. On the line were three people who he felt had helped define CIO leadership: John Cross, who'd just left his post as head of IT at BP Amoco PLC; Christopher Hoenig, former director for information management and technology issues at the U.S. General Accounting Office; and Patricia Wallington, recently retired CIO of Xerox Corp. Shepard outlined his situation and then shut up and listened.

Patricia Wallington: Two things have happened, David, that make your relationships important. You've moved into the executive ranks, and your peers are different from who they were yesterday. Now you have to reestablish the relationships because the chemistry is different. And you have a new CEO among that set of peers.

John Cross: It's these relationships that will unlock your capacity to gather votes to sustain an idea, to create enthusiasm to support it, to marshal the investment to develop it—in effect, to lead.

Shepard: Since I'm reporting to her, I'm most worried about my relationship with the CEO. How can I develop it quickly and well?

Christopher Hoenig: The new CEO is a double-edged sword. The big opportunity is that you've got a new CEO under a lot of competitive pressure who needs to succeed.

Wallington: And someone who sees technology as very competitive.

Hoenig: Right, but that's also one of the biggest hazards. If you have an impatient CEO who wants action and that converges with a powerful enemy or difficult circumstances, it could be hazardous to your health.

Shepard: I've been thinking that I've got to impress her quickly. What should I do? Or not do?

Cross: If you do something too smart, simple and glitzy, it may come around later to bite you. On the other hand, if she's in a hurry, it's important that you're seen as proactive with some of her agenda items. You can do that in part by testing her on the clarity of her intentions. At this stage, she will be just as impressed with the right questions as with the right answers.

Hoenig: Exactly. If you make an accurate assessment of the problem and determine what needs to be done now, you can set yourself up to intelligently overdeliver.

Wallington: I never got the art of that. I always intelligently overcommitted.

Shepard: So I should seek her out for clarification. You know, our new VP of strategy, Rich Pepe, seems to be her right-hand man. Do I have to find a way to go around him?

Wallington: No, you can use him. Pepe has all this experience with the CEO and he can coach you on how best to meet her expectations—what she likes and doesn't like, what she really means when she says something. He's a diamond sitting there waiting to be collected.

Shepard: I've never liked playing politics, and now it sounds like that's a lot of what I'll be doing. How would you proceed?

Hoenig: You have to understand the politics but not fall prey to them. You need to be the kind of person who can come in and solve problems and disagree if necessary and be an independent force. To project this, I try hard in any one-on-one conversation to have the same conversation I'd have if there were other people in the room listening to us. I try to project as much of that independence and desire to get the right solution for the company as possible. It's a very tough thing to pull off, but it's really important.

Wallington: The key to what Chris said is to get the right answer for the *company*, not the right answer for one person or the safest answer for you politically or careerwise. That's putting your personal courage and conviction out there.

Hoenig: If you are that kind of person, other people are going to want to have a relationship with you.

Wallington: And you will end up getting called in on lots of decisions because people will know that you can't be manipulated, that you will always be objective and above board.

Shepard: I guess it's also a political issue, but I'm not sure what will happen with my friend Rob Matson, our COO. Anything I can do here?

Cross: In too many cases I've observed that the Matsons of this world actually don't survive. They're kept on for their institutional memory, but those words usually mean they are there for a bit of transition and a year later they're gone.



Cross: We had a chief of staff at BP who I reported to for a period. He proved to be a great way to get access to the CEO more quickly than anyone else because this guy was the CEO's confidant. Because he had such frequent access, if you wanted to test ideas, he could do it for you quickly. He was a sound barometer to how something was likely to play.

Hoenig: I'll throw out one caution here, though. Going into any relationship with a new confidant like that, you have to get as much intelligence as you can so you get to know what type of person he is.

Wallington: You mean Pepe could be a snake in the grass?

Hoenig: He could be protective of his access to the CEO or be out to build his own power base.

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If that's a possibility, you have to be careful that, despite the fact that you're good friends with this guy, you aren't simply seen as an old extension of Matson's environment. Be careful about leaning too heavily on old dependencies.

Hoenig: If you haven't proved yourself yet as an independent thinker, you might want to openly disagree with Matson in an initial meeting to show that you're willing to take an independent point of view on an issue.

Shepard: I see what you're getting at, though I don't like it. I've got to figure this out.

Cross: Partly because I'm uneasy as to whether Matson is a long-term player, I'd rather spend my time figuring out Pete Lucibelli, your sales and marketing head. As a matter of practice, I always pick the three or so most difficult guys in the organization who are at critical points and make sure they become future friends and allies.

Shepard: Lucibelli is definitely a problem. He could undermine my position before I even get these new relationships going. I don't know about making him an ally, but can I do anything to neutralize him?

Wallington: Try having an upfront conversation with him. "It's a clean slate, we have a new CEO, let's get off on the right foot." Tell him you want to understand his expectations, but he needs to under-



stand things

from your side, such as the need for standards. Then pick a person, or let him pick your very best IT person who will be his contact. Then he's got some control because he's got the person.

Shepard: I don't know if that will work. This is a guy who has broached outsourcing with the other execs in the past.

Hoenig: If there's a threat in terms of outsourcing and big consultants coming in and taking over the job, that's also something to be proactive about. Pull together the benchmarking data and take an aggressive posture on outsourcing options so that you are in control of the agenda and no one else is setting it for you.

Cross: David, if I may, one thing that's essential at this stage that goes along with working out your relationships with these people is establishing clear accountability and authority.

Shepard: For...?

Cross: A new CEO comes in and fires off a lot of directives. Who will be account-

able for what? If you and the others are going to make strategic decisions and investments, the CEO needs to be very clear who is going to drive that, and it needs to be known in your executive pool. If you're not careful, everybody bolts back down their various rabbit holes with huge new requirements. Then you can actually lose control. They'll say, "The CEO wants all these things done tomorrow, and I have to get on with it. I haven't got time for you."

Wallington: One thing you could do that would help your CEO (because she obviously didn't think of it) is to go forward with a proposal of how you see your role and ask her to comment and codify it as she sees it. Then suggest that this would be a good thing for everybody to do so that they could all help her do what needs to be done.

Hoenig: Define what you'll be responsible for and what you're *not* going to be responsible for. And negotiate for the authority you need to get the job done, things like setting and enforcing standards or allocating funds.

On Our Web Site

cio.com

For More on Enterprise Leadership

John Cross, Christopher Hoenig and Patricia Wallington discuss why the prized goal of IT-business alignment is actually antithetical to leadership. For this and other articles, links and leadership resources, visit CIO's Leadership Research Center at www.cio.com/forums/leadership.



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Shepard: I'll try that. You know, this reassessment of relationships has got to extend to my IT people as well. I'm going to have morale problems if they pull the plug on our treatment-protocols knowledge net and the extranet add-on. I may lose my ace network manager over that.

Wallington: I would do at least two things there. I'd have a communication

meeting, just an open meeting, and walk everybody through what I know. I'd try to get people to understand that there will be lots of change, and change brings excitement. Nobody's talked about lay-offs. Maybe you can transfer people to new projects. Without the meeting, people will speculate and worry. If you don't know everything, commit to tell them when you do know. The fact that your

position has been elevated means their position in the organization also has been elevated.

Then I'd pull key people who are particularly worried and have one-on-one conversations. Find out specifically what they're worried about and find out what they'd like to do. Maybe Devlin is sick to death of this project and would like to do something else. Give them the opportunity to talk to you.

Warren Bennis's Commentary

It's All About **Relationships**, Stupid

DAVID SHEPARD'S NAIVETÉ IS DAUNTING. HE REACTS TO opportunity with fear and frustration. The CEO has opened the door to a new world that includes him. Of course it's natural to worry; we all have performance anxieties. But he's not seeing this as the opportunity it represents. David—and all CIOs facing the leadership challenge—need to ask themselves, Do I really want this? Do I know what it means to be an enterprise leader? I'm not sure David really looks forward to this new role. The first and fundamental question has to be, Do I want to change?

Assuming the answer is yes, any leader has to be willing and able to engage in politics. I infer from the case that David views politics as somehow distasteful, like the lobbying that goes on in Congress. But politics is *all about* relationships. Politics is understanding the social etiquette of bureaucracy. In order to get anything done in an organization, you've got to get people aligned with your goals. That's not distasteful; it's what makes the pulse beat in an organization.

What's necessary for building and sustaining healthy relationships? The first traits are credibility and competence. As I mention in "Wallflowers at the Dance" (Page 56), that comes from mastering the basics. It's keeping the trains running on time. The second trait is reliability. People can count on your performance. You're a pro. It's been said about great baseball pitchers that even on their bad days they win. The third key is having the ability to communicate with people in a way that resonates with them. They don't think you're talking jargon or showing off, and you're not talking down to them. You've got to come across as authentic, not just sincere. People have to regard you as real.

Relationship building is fundamental to the primary role of leaders in the next millennium. The only way an organization can make use of its derived knowledge is if its leaders create a set of relationships, or human networks, that will transform data into intellectual capital. That means bringing together federations, clusters, cross-functional teams, ad hoc task forces, great groups. It's organizing genius. You can't do that without being skilled in relationships.

—Warren Bennis



Epilogue

DAVID SHEPARD DESCRIBED HIS proposed responsibilities to the CEO, and she agreed with the suggestion that she clarify accountabilities across the executive team. Shepard also began cultivating a friendly relationship with her confidant, Vice President of Strategy Rich Pepe, who turned out to be as big an Oakland A's fan as Shepard. After allaying fears within the IT group, Shepard identified several people eager for new challenges including, as it turned out, network guru Greg Devlin. Unfortunately, sales and marketing chief Pete Lucibelli didn't seem receptive to Shepard's proposal that they start over with a clean slate. Obviously it will take more time to build and solidify these relationships, but Shepard can't afford to wait for everything to gel; he now has to bring his strategic knowledge of technology and business process to bear on CaliMed's still-fledgling turnaround strategy. **CIO**

Executive Editor Richard Pastore can be reached at pastore@cio.com.

Coming in **Part 2**

In the July 1, 1999, issue of *CIO*, join Shepard and his leadership coaches as he figures out how to enable CaliMed's turnaround and lead his company in promising, yet risky, new directions.

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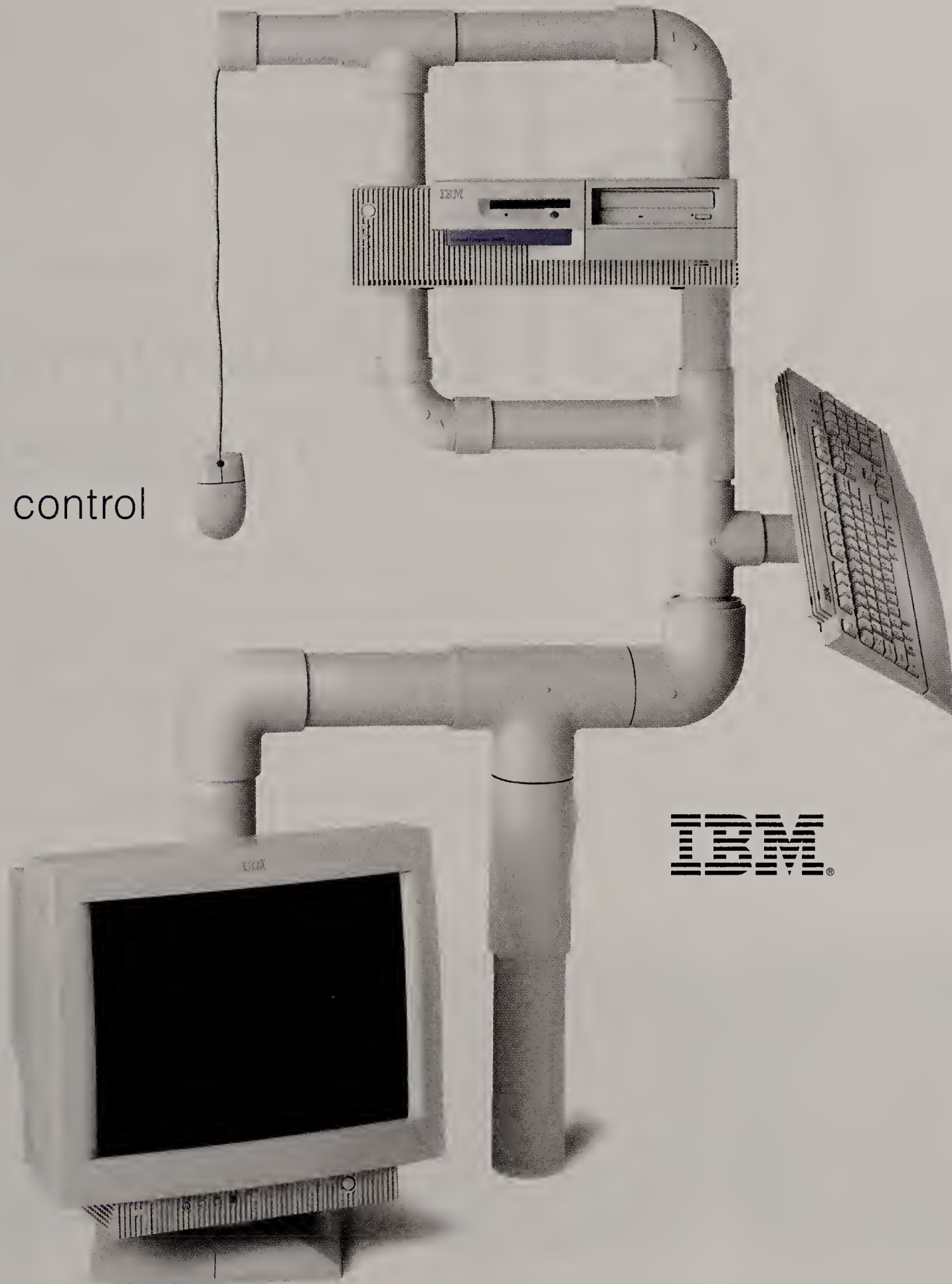
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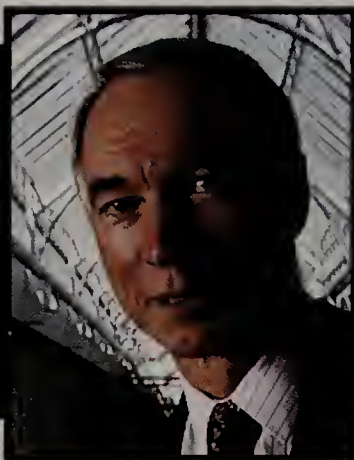
The Call to Enterprise Leadership

To take advantage of the critical role IT plays in business today, the CIO's mission needs to be more broadly defined. And so does the CIO.

BY CHRISTOPHER KOCH



Wayne D. Bennett, partner, Bingham Dana LLP, Boston



John Cross, executive vice president, AppNet Inc., Bethesda, Md., and former head of IT, BP Amoco PLC



Christopher Hoenig, CEO of Exolve Inc., Washington, D.C., and former director for information management and technology issues, U.S. General Accounting Office, Washington, D.C.



Susan S. Kozik, vice president of information systems and chief technology officer, Penn Mutual Life Insurance Co., Horsham, Pa.

Call IT "INTERNET PRESSURE"—THE MEDIA HYPE THAT HAS SENSITIZED top executives to technology and to the ways it can be used to shape the future of the business. With technology so preeminent in the minds of CEOs these days (in a recent survey, they ranked use of new technology above product quality as the most critical issue for business success), CIOs are being asked to be much more than good managers. Today, the CIO's success depends upon developing the enterprise leadership smarts and skills to help mold Internet pressure into a rational technology strategy that serves the best interests of the company as a whole.

We gathered a panel of experts from CIO's Editorial Advisory Board to identify these challenges and to recommend strategies for leading the business, not just IS.

A Leadership Question

CIO: What are the obstacles to a CIO displaying leadership in the organization, not just in IS?

Susan Kozik: I think we need to see ourselves as business people who happen to have a strong suit in technology, just like someone else has a strong suit in finance or product development. I think when you [a CIO] walk into a room and are perceived as a business person who understands the entire enterprise—the strategy, the issues, the concerns—and happen to bring some expertise to the table, that changes the way you're seen. When you treat technology as a component of an enterprise and not as a separate entity, it changes the way you're welcomed. We must get over that separateness in the way we walk and talk.

Laraine Rodgers: It's one thing for the executive team to tell the CIO, "You're on the team," but if you're in another building or in another city, that can be an obstacle.

Wayne Bennett: I work with maybe a dozen CIOs a year, and they are potentially the most isolated people on the planet. The CFOs and the rest of the executive team usually start with two preconceptions. One is that technology people don't understand where the business is going. And two, they see that they can buy paper clips as a commodity, so they want to know why they can't buy technology as a commodity too. So they start from the wrong perspective.

On the other hand, the CIO also is faced with his or her own people who have come to be isolated in their own way. They've been told, "Here's what your budget is." So sometimes their goal

becomes, "Let's keep cost within that budget," as opposed to, "We are a service organization. We don't exist except to further the goals of the business."

That's why CIOs need to have two goals. One is to get to the point where you can stroll into the CFO's and the CEO's office and tell them what you need and that before they can consider the cost they need to consider what the cost of failing to do it will be for the organization. Secondly, you've got to lead an organization. You've got to have all the people working for you on the same page so that they understand that their [responsibility] is not just to make sure they get their jobs done within budget but that when they pick up the phone to help someone on the business side, the goal is to make sure that person's job gets done.

Bud Mathaisel: I've always challenged the title CIO as being probably inappropriate and perhaps even arrogant. We are not chiefs of information. Information is everybody's province. We are heads of the information infrastructure that delivers the information that allows those who want it to go get it. Case in point: A new CEO comes in and wants the company to be more customer-intimate. It's our job to figure out how that can be possible and how marketing can fulfill its role, how product development can fulfill its role, how manufacturing can fulfill its role.



Bud Mathaisel, executive director and CIO, Ford Motor Co., Dearborn, Mich.



Laraine Rodgers, president, The LR Group, Phoenix



Robert M. Rubin, senior vice president and CIO, Elf Atochem North America Inc., Philadelphia



Harvey Shrednick, professor at Arizona State University in Tempe and director of the university's dual master's program in business administration and information management

PHOTO BY (LEFT TO RIGHT) GEORGE SIMIAN; PETER JORDAN / LIAISON INTERNATIONAL; KATHERINE LAMBERT; STEVE WEINREBE; JOHN GILROY; KATHERINE LAMBERT; EUGENE MOPSIK

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CIO: Is there ever a time when a CIO should step forward with an initiative that isn't already spelled out by a CEO, where you can say, "I think there's an opportunity here"? Maybe someone at Schwab did that and from that came e-Schwab.

Christopher Hoenig: If you understand the key business theme—like customer intimacy—and you have an overall technology vision of where you want to go, then you can take that first step.

When you take that first step and then show people what the next three steps are, you begin to give people a sense that you not only know where you're going and where the organization is going, but that you can actually get them there. The more you present that profile, the more you're perceived as a leader.

Harvey Shrednick: I've had a top executive look at me and say, "Harvey, don't tell me your capabilities. Leadership from you is to tell me the possibilities. You guys are great, but I have no idea where I can go. Throw things up on the wall that potentially could work for me. Tell me things that I could possibly move forward and [would] gain some kind of a strategic advantage in my business. But don't tell me all the great and glorious infrastructure you have."

Bennett: I think the alignment with some particular business goal of the CEO is a management problem and not a leadership issue. When a CEO comes in with his plan, this is where [the CIO's] leadership can play a role. You can go to the rest of the leaders of the company and find the e-Schwab kinds of ideas. All it takes is for somebody to identify those kinds of ideas and bring them back through the organization. And the credit will go wherever the credit goes. That's a political thing.

Mathaisel: We have to step up to the fact that what makes a difference between management and leadership is what many others may call politics. We've got to sort out the winners. It's not worth-

while investing tons of infrastructure money on people who are not winners, either the intellectual winners or the political winners. It just isn't. They're not going to make a difference to the company overall.

Membership in the Club

CIO: Our readers tell us they are viewed as operational people. They want to know how they can establish leadership in the company when they are not within the sacred circle of business leaders.

Kozik: What I've observed in terms of people's reactions to when the doors to the executive club are closed is they go back to IS and work hard and try to deliver. I think that's a mistake. You can't go back to IS and say, "I'll show them." It isn't always about that. It's about where the organization wants to go and what it values. With the best of intentions, you'll churn, you'll bust your tail, and it may be the right thing to do technically, but if you haven't made your case through whatever process that's valued in that enterprise, in the culture of that enterprise you'll look worse.

Hoenig: If you are outside the club, it's almost impossible to get in. I feel sorry whenever I hear people say, "My boss pays no attention to me. I'm three levels down and I want to become a leader." You have this tremendous urge to say, "Here's a rope. Push it." It doesn't work very well.

Bennett: In my experience, half the time the CIO isn't part of the decision to make anything happen. The difference [between those who are and those who aren't] appears to me to be the CIO who has stepped up to say, "I am going to accept risk" and who has imbued his people with a sense of, "We are not here to manage. We are here to take risk." Meaning, I'm personally in peril if this does not work. That's what a CEO or a CFO does. Accepting risk means instant

membership in that club, and you're always consulted, even on things that are not IT-related.

Playing the Game

CIO: It's clearly an uphill battle to establish oneself as an enterprise leader, but IT executives know they've got to try. What steps should they take?

Shrednick: I believe the first and most important thing to do is to meet with the person you report to, whether it be the CEO, the CFO or the CIO, and understand what that person is looking for. Who are the influence peddlers, so to speak? Who are the people who are going to be your major allies? Who are the people who are looking to break your legs? Really understand what the expectations are, also from a timing point of view.

If you need to exert leadership, it's going to be hard to do that in the very beginning, but what type of time line is the boss giving you? Is he giving you three months? Six months?

John Cross: I find a very helpful piece of leadership is to identify your biggest critics out there who are key on the map. And do not ignore them. In fact, take them absolutely seriously. If you turn your biggest critics into winners, they are the most powerful advocates you could possibly have.

Hoenig: I think the first thing actually goes back to Susan's point, which is [CIOs'] view of themselves. I think the first thing they [need to] do is make a personal commitment to leadership. Until they've made that conscious choice, it's not going to happen. They can take tactical approaches and go to courses, but people know leaders by the way they interact, by the way they look you in the eyes, by the way they follow up, by the commitments they make and keep, and the relationships they build. And that really starts with personal choice.

Mathaisel: It certainly is important that

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a person act like a leader and consider himself one, but I have to go back to the fact that you've got to have a compelling reason why people should listen to you.

Hoenig: Building on that, I guess a second item would be to identify a specific business problem opportunity that would be the place to begin leadership.

Shrednick: You can't at first. When I became CIO of Corning, I noticed that there were four degrees of differences between me and the rest of the management team. Number one, I was coming from New York City to upstate New York. Here was a culture of Midwest upstate New York, and they were looking at a totally different kind of person. Number two was my ethnic background, [which was different from] their ethnic background. Third, I was a single person coming into a place that was 99.9 percent married, which again deals with the social fabric. A fourth difference was that I was an IT person, and people in the management group were in many cases technophobic. Of course, it could have been worse. I could have been a woman.

Robert Rubin: Nobody is going to pay any attention to you as a leader if you can't do what you say. First, achieve what you promise. Credibility is absolutely key. Second, seek many small successes. It's not putting in the eight-figure ERP system that gets you someplace. You've got to do many, many small things so that you build that level of credibility.

Third, give away the credit. Nobody loves you as much as when you make them look good. The worst thing a CIO can do is take credit for anything. It's foolish. And, finally, concentrate on building a network of supporters. If you do the first three, chances are you will. When you build that network of supporters, then you will be in a situation where you will have credibility, and you will be able to provide leadership, so long as at that point you then use the capabilities, or as Harvey said, the potential of the technology to influence the business direction. **CIO**

Senior Editor Christopher Koch can be reached at ckoch@cio.com.

Warren Bennis's Commentary

Wallflowers at the Dance

THERE'S A PARADOX CIOs SHARE WITH SPECIALISTS IN EVERY organization, whether the specialty is HR, marketing, advertising or facilities management. On the one hand, you're rewarded for your capacity to specialize, to develop a deep understanding of one discipline. You move to the top by becoming more and more skewed toward your specialty. On the other hand, to be an enterprise leader, you've got to be a deep generalist with a view across the whole organization. The question then arises, how do you combine the two? How can the CIO role be broadened to be perceived as integral to the success of the organization? That's the subtext running through this entire roundtable discussion.

As with any specialist, you've got to first show that you've mastered the basics. That means making sure the plumbing is working, that you've got reliable systems that are flexible enough to respond to change. Then the second major issue is your own mind-set. You've got to see yourself as an enterprise leader, integral to the success of your business. As Christopher Hoenig says, you must make a personal commitment to leadership and see yourself that way in order for others to perceive you as such. The mind-set must be that the CIO role is an integral component of business success. It is not just relevant, and it certainly isn't peripheral. It is *pivotal*.

Unfortunately, CIOs seem to have a mind-set of marginalization, which will interfere with their emergence as enterprise leaders. In this roundtable, CIOs sound like wallflowers waiting to be asked to dance by the other executives. The CIOs dwell on the personality and background differences that supposedly set them apart. Or they see the fact that their office is in a separate building as an obstacle. This contributes to a marginalized self-image. Sure, you may be in a different building, but that's reality today. With globalization and hoteling, corporate headquarters aren't that important anymore. If you see yourself as a leader, you'll work to overcome these real or imagined obstacles.

Finally, there will always be people who resist the notion that the CIO is an enterprise leader. Don't worry about them. Focus on the health of the company and find the people who can sense the discrepancy between where the business is and where it wants to be. They're the people you have to work with. Don't waste your time and energy trying to domesticate all the dissenters.

—Warren Bennis



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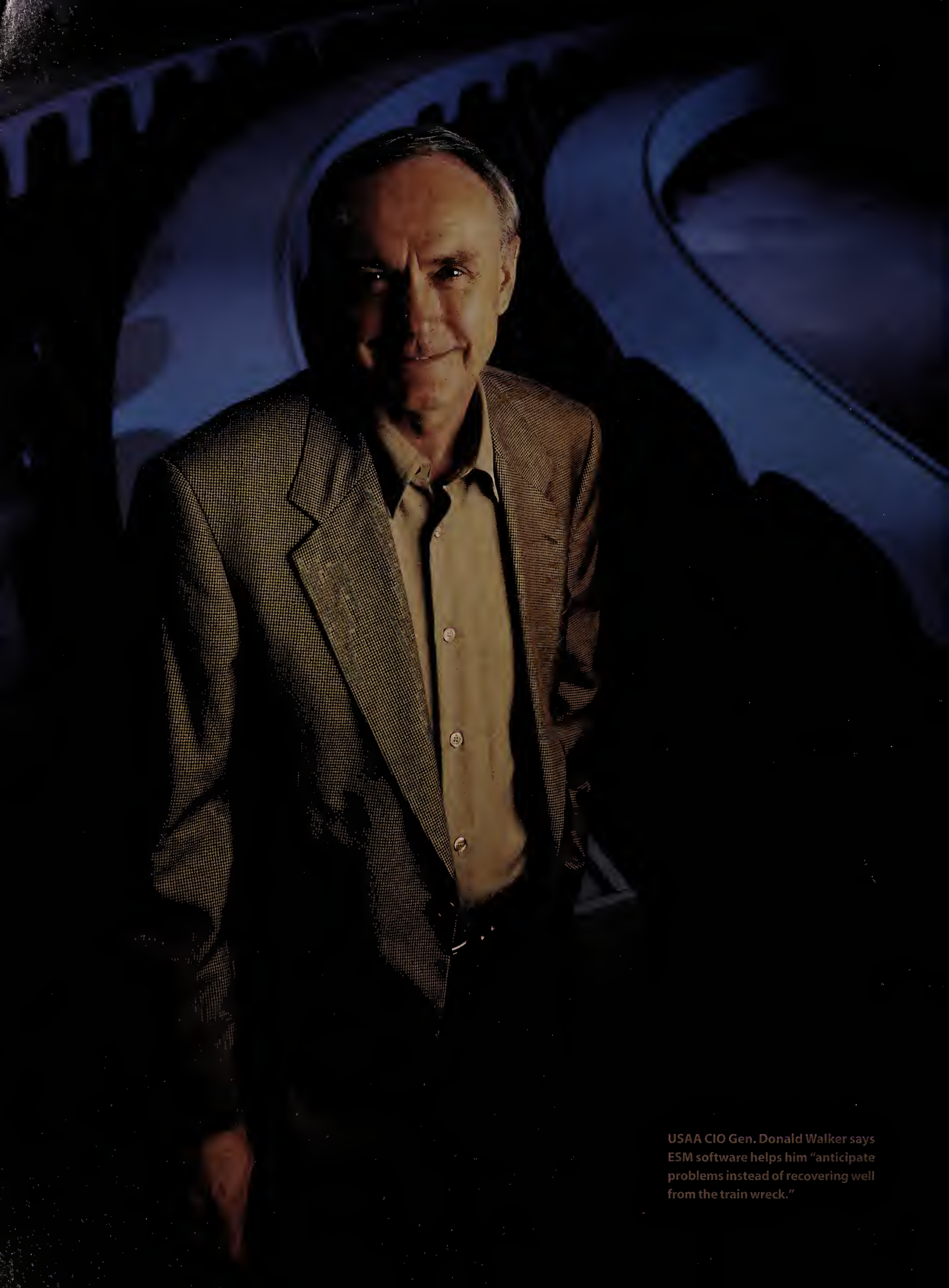
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USAA CIO Gen. Donald Walker says ESM software helps him "anticipate problems instead of recovering well from the train wreck."

New enterprise systems management frameworks make controlling distributed computing environments as easy as connecting the dots. So why are CIOs hesitant to take the ESM brush to the IS canvas? **BY DEREK SLATER**

Gen. Donald Walker oversees a seven-processor mainframe environment (4,400 MIPS' worth), a handful of midrange servers (320) and a few Windows NT desktops (25,000 or so). Walker is CIO of United Services Automobile Association (USAA) in San Antonio, and occasionally the sheer size of the insurance and financial services organization creates headaches. For example, take software updates.

Some time ago, USAA planned a software rollout that went smoothly "until we ran into instability at about the 7,000-desktop mark," Walker says. Problems cropped up that hadn't appeared in the test lab, where roughly

500 PCs were running test scripts. All the individual components worked, but they didn't work well together at the necessary enterprise scale. Developers, contractors and operations workers wound up in crisis mode, scrambling to fix the problem for a very peeved business-side client.

Sound familiar? Any CIO with a client/server setup knows that software distribution is just one of many systems management hassles. Enter ESM, enterprise systems management, the science—or art—of managing distributed computing in big companies.

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- ▶ Good—and bad—tactics for justifying the ESM investment

SOFTWARE IMPLEMENTATION

USAA bought IBM Corp.'s Tivoli Enterprise framework as the software foundation for an ESM project. Like all ESM efforts, USAA's project incorporated lots of systems and network management functions, but it is Tivoli's automated software distribution capability in particular that best illustrates the potential of ESM. Now Walker can push an 80MB load of software out to 7,500 desktops in about 5 hours. Fast distribution means Walker's group can make a few bulk changes instead of many incremental ones. That in turn means less integration testing, more time to do it, less potential for error and lower testing costs. By creating a centralized, real-time mechanism for collecting systems feedback, "Tivoli also helps us anticipate problems instead of recovering well from the train wreck," says Walker.

Fast, smooth software distribution is just one example of ESM's promise. ESM vendors make a raft of others: Better uptime, higher application performance, more efficient storage and security, increased visibility into problems.

PrimeCo CIO Jim Myckleby justified the ESM software expense "in terms of running the business more efficiently."

ESM: What Is It?

ESM stands for enterprise systems management. Say what you will about the days when the frames were main and the terminals dumb, it was a fairly easy environment to manage. ESM is the discipline of trying to create a similar level of control and automation in complex distributed computing environments. ESM encompasses many management functions, including but not limited to

- Automated software distribution
- Distributed applications management and performance tuning
- Database administration
- Network management
- Output management
- Storage management
- Automated backup and recovery
- Help desk
- Security

The idea behind the software frameworks is to gather these various functions under a single umbrella. Sundry modules control and automate the functions listed above. All the modules plug into the framework, which provides a centralized management console to help pinpoint trouble spots, whether the problem is a server in need of a reboot or a fried board on a router. —D. Slater

However, along with the promises comes ESM's bad rep. Some early attempts at ESM framework implementations hit more than the usual share of IT project snags because both the management software and the client/server environment were new. That scared off a few folks. Instead of taking the risk, they preferred to stick with solutions that handle various administrative tasks like security, backup and performance management but don't exchange information and thus provide no overall view of what's going on enterprise-wide.

But that was then and this is now. "We've certainly found significant customers who have gotten excellent return on their investment," says Paul Mason, vice president of infrastructure software research at International Data Corp. in Framingham, Mass. (a CIO Communications Inc. sister company). "I suspect the problems [in ESM implementations] are institutional as much as anything else." In other words, there's nothing wrong with the frameworks, but



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SOFTWARE IMPLEMENTATION

companies buying and using them have to handle the implementation correctly and must be prepared for corporate changes in order to make the software pay off. If we add disciplined project management, process change and organizational remodeling, ESM can help keep the networks humming, the software up to date and the security sound.

Phase It In

Before implementing a framework, CIOs must define which specific management functions the project will address. The basic architecture of an ESM suite is this: The framework provides a central repository of information about the devices attached to the enterprise network; a set of software agents resides on those distributed devices and keeps the repository up to date on any changes in the status of the devices; an interface graphically displays that status. Software modules that plug into the central repository and make use of its information handle various management functions. ESM suites offer a long list of potential modules and functions, but not every piece is necessary for every company.

Veterans universally recommend breaking the implementation process into phases. Done correctly, ESM rollouts require a lot of time—a year or more is quite appropriate. Trying to roll out the whole convoluted kit and caboodle in one heroic effort is no more likely to work with ESM than it is with enterprise resource planning (ERP) applications—that's what gave both of them a black eye in the first place.



"If you go in with the mentality that the framework is going to manage everything, you're going to fail," says Graybar CIO Ken Klindworth.

Expect to Integrate

Even though ESM suites cover a lot of ground, they do not cover all the ground. Third-party applications frequently plug into the framework to handle niche functions.

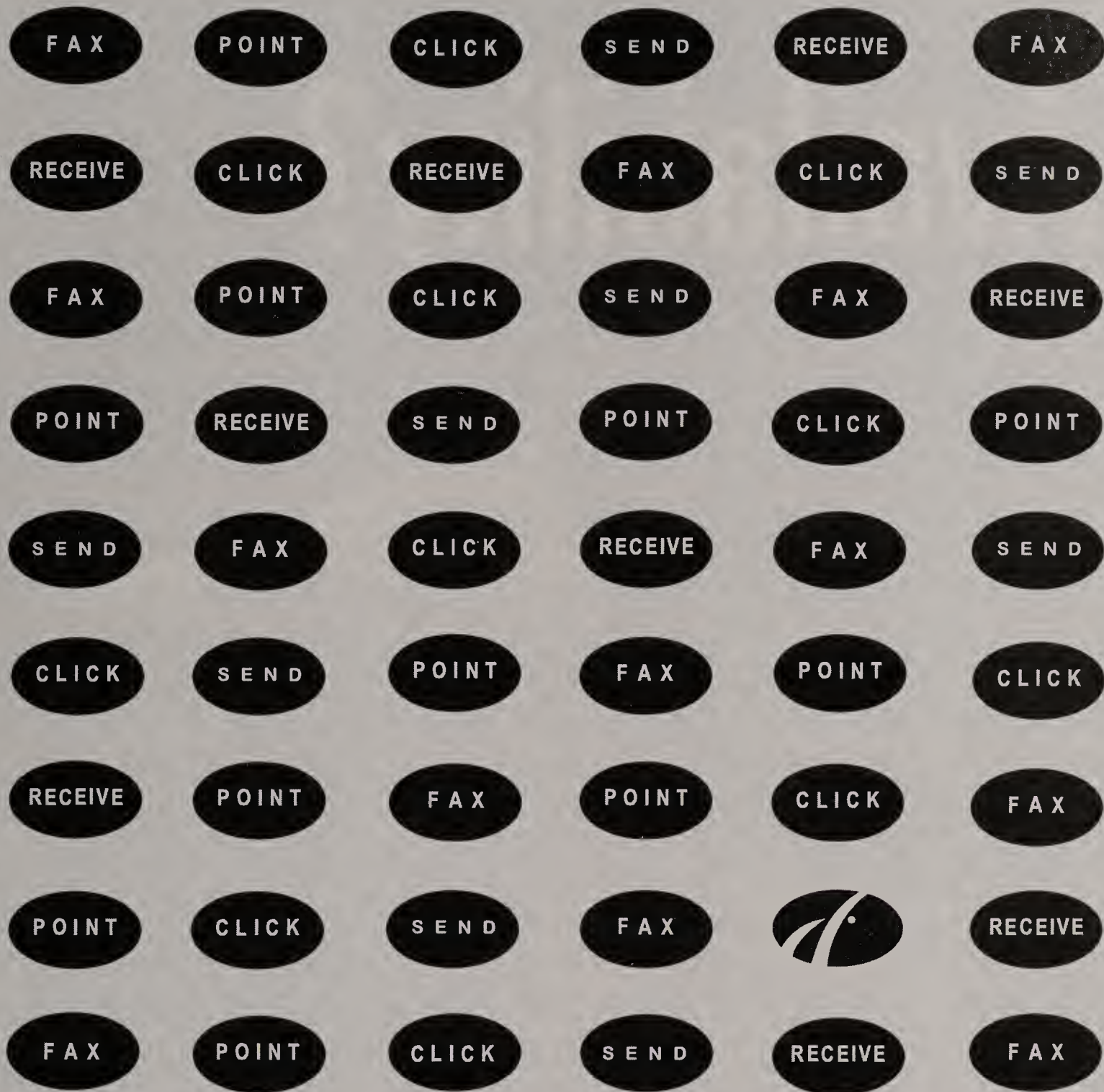
"If you go in with the mentality that the framework is going to manage everything, you're going to fail," says Ken Klindworth, vice president and CIO of Graybar Electric Co. Inc., a \$3.7 billion wholesale distributor of electrical and communica-

ESM veterans say that although they do not have hard payback figures, they are convinced that frameworks save their companies money.

PrimeCo Personal Communications LP, a PCS-wireless communications network provider based in Westlake, Texas, is going about its implementation the right way. With 3,500 PCs, 180 servers and 2 IBM SP2 parallel processors to manage, PrimeCo started its ESM effort with the Tivoli Enterprise framework in July 1998. The first phase of the implementation included the security configuration and software distribution management modules, according to Vice President for IT and CIO Jim Myckleby. Fault management—tracking and fixing network and systems problems, which is typically regarded as the central function of ESM—was relegated to phase two, scheduled for completion next month. Production management (including issues such as scheduling of processing jobs) is also a part of phase two. Any further functionality will happen in a third phase.

tions equipment based in Clayton, Mo. Graybar dove into ESM about five years ago. The company uses the OpenMaster framework from Bull Worldwide Information Systems' BullSoft division to manage 2,550 devices (including printers and other peripherals) attached to 300 local area networks. While OpenMaster is the overarching system, Graybar connects software from several other vendors to handle specific functions. The Graybar network's 3Com Corp. hubs and switches, for example, are monitored by 3Com's Transcend Management software; Nortel Networks Corp.'s Optivity management suite keeps track of the routers and ATM devices. Graybar also uses BMC Software Inc.'s Patrol management software to keep tabs on its BEA Systems Inc. Tuxedo transaction monitoring system. Some vendors' suites are more tightly integrated than others. A highly integrated suite provides smooth connection of one mod-

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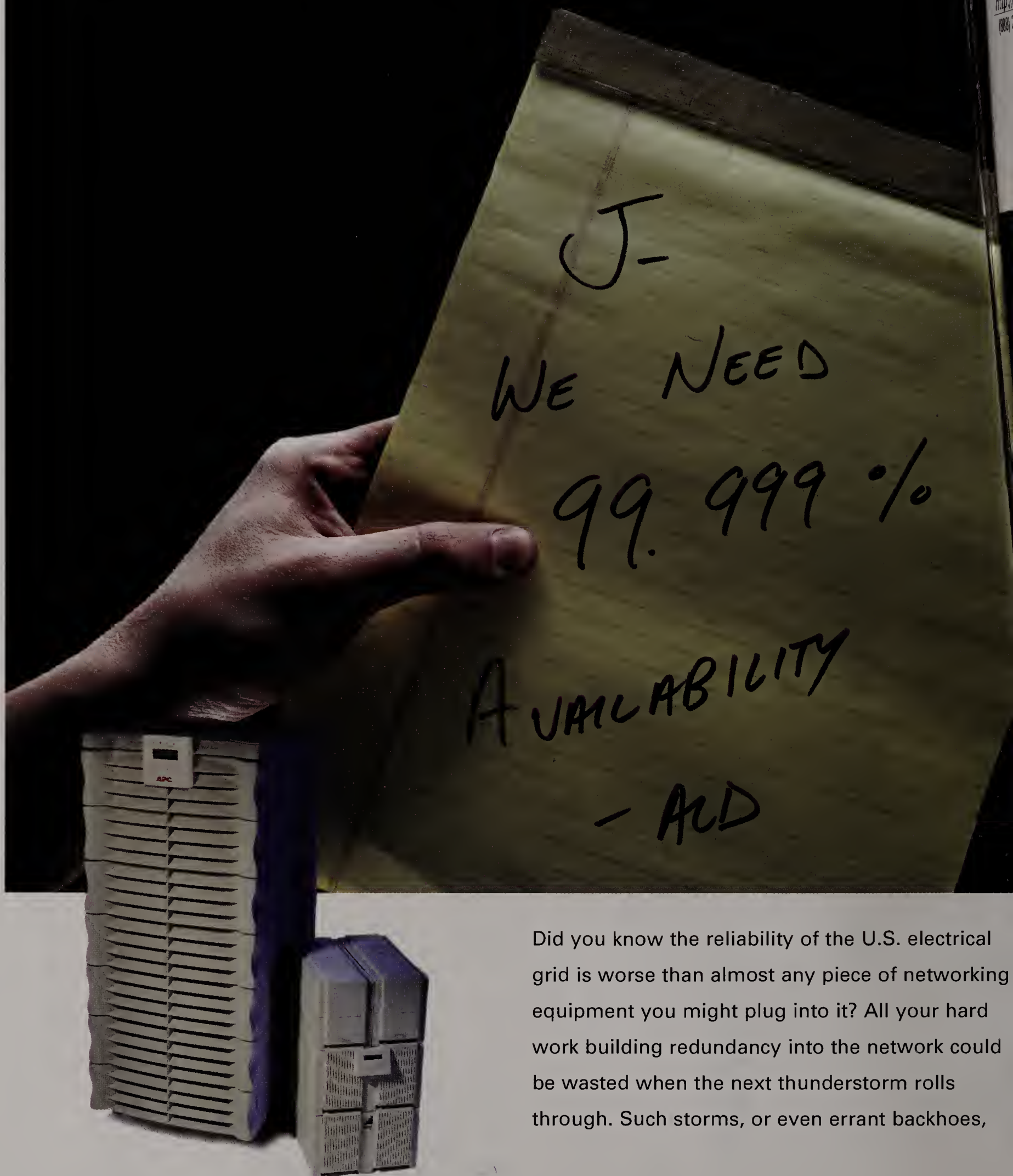
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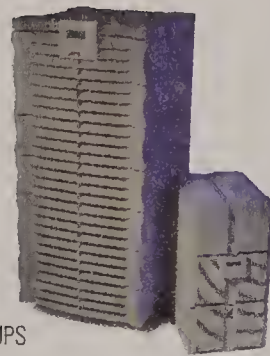
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SOFTWARE IMPLEMENTATION

ule to another and can make network problem-solving easier. The trade-off is that it can be more difficult to integrate third-party applications. It's up to the CIO to find the framework with the right balance of integration and openness. "For us,

Inc. (recently acquired by Computer Associates International Inc.) gives Verhelst an early warning of those kinds of problems and helps resolve issues before a server crash. Verhelst estimates that the total cost of ownership for maintaining Kind en

The complexity of EMS software and the networks it manages demands a dedicated team for implementation and ongoing maintenance.

OpenMaster has a high degree of integration where we need it, but it isn't so integrated that you can't add things to it," says Ted Hoffman, director of IS for Graybar.

Nail the ROI

It's an old IS conundrum: How do you quantify the dollar return on a process that adds no new capabilities but facilitates other processes? Most ESM veterans say that although they do not have hard payback figures, they are convinced that the frameworks ultimately save their companies money.

ESM's return on investment can come in two forms. One form is enhanced systems availability. For example, one CIO who requested anonymity reportedly increased his uptime from 95 percent to over 99 percent and multiplied that increase by a "cost of lost sales due to an inability to book orders" figure supplied by the marketing department to determine his ROI. Others confirm this kind of return.

"I don't have figures on the ROI; I can't prove the payback," says Luc Verhelst, the Flemish CIO of Kind en Gezin, a Belgian government child-care agency in Brussels. "But when your mail system goes down for one hour, that costs a lot of money." Kind en Gezin's ProVision ESM system from Platinum Technology

Kind en Gezin CIO Luc Verhelst can't prove the ROI on EMS but "when your mail system goes down for one hour, that costs a lot of money."

Gezin's network has dropped to two-thirds the industry average since installing the software.

The other form of payback is in staff reduction. But PrimeCo's Myckleby argues that the prospect of cutting staff through ESM could lead the IS group to resist the project. PrimeCo emphatically stated upfront that its ESM implementation would not result in staff cuts. Employees were told that they would be retrained and given new responsibilities if their old job functions were automated away. "We justified [the software expense] in terms of running the business more efficiently," Myckleby says. "That takes the fear of people losing their jobs off the table."

Whether the company insists on concrete dollar justification for the ESM purchase or settles for an ROI based on system performance, expect the payback to be a long time coming. Graybar counts better problem isolation, increased uptime and higher companywide satisfaction with IS among the results of ESM but says it took a year before these benefits became apparent. "You have to have some faith to stick with it," says Hoffman. He notes, however, that Graybar jumped into ESM early and that the maturity of today's products may allow for a faster payback.

Change Everything

ESM is more than software; it is a corporate discipline. In this respect it resembles ERP software. Simply pulling it out of the box and plugging it in won't work. To reap any benefits, CIOs must examine their companies' management processes and policies before embarking upon an implementation. If there is a skeleton key to making ESM work, advance planning is it.

For example, about 700 mobile PCs and 300 desktop PCs throughout Belgium need to plug into Kind en Gezin's systems. In addition to off-the-shelf Windows applications and analytical software, those computers run a custom-developed application called Ikaros, which helps the agency's visiting nurses share patient files. Like USAA, Verhelst's agency wanted to automate the process of distributing software updates to their roaming client systems. But once they got the ProVision ESM system running, they discovered that one-button software distribution can create chaos. If the help desk, the applications development team and the network manager can all push the button



PHOTO BY NATACHA DYDEWALLE / LAISON

for software distribution, the result can be incompatible versions, not to mention a support nightmare. "We had to examine this process very carefully. How do we change our client configurations?" asks Verhelst.

Kind en Gezin responded by limiting the authority for software distribution to a single change manager who would ensure appropriate compatibility tests were performed and documented before any changes were rolled out to the client systems. To avoid conflicts, Verhelst's agency went through a similar procedure to define and document its automatic job scheduling procedures.

Other veterans echo the call to examine, document and change processes. When PrimeCo decided to implement Tivoli's ESM solution, Myckleby brought in change management consultants to run two-day classes for the IS staff.

Keep It Staffed

With ESM, appropriate staffing means full-time staffing. "This system is not shrink-wrapped software," says Graybar's Hoffman. "We put one guy in charge of this thing from day one, thinking that once he got it installed he could go do other things. We figured out pretty quickly that it was never going to happen." The complexity of ESM software, and the networks it manages, demands a dedicated team for implementation and for ongoing maintenance.

A criticism that some have leveled against ESM frameworks

is that they lack proactive capabilities. In other words, while the framework provides a central console for monitoring problems, it does not sufficiently increase the IS group's ability to anticipate them. Vendors are striving to respond to this criticism. Most notably, last year Computer Associates announced the addition of neural network functionality for its Unicenter TNG product, allowing the framework to do more sophisticated pattern recognition and recognize earlier the events or sequences that can lead to performance deterioration.

However, Graybar's team says the issue of proactivity also can be addressed through appropriate staffing. "It's as proactive as you want it to be," says Don Ludwinski, the company's manager of networking and open systems. Ludwinski says ESM frameworks can be set up to simply page the technical staff when performance drops below acceptable levels, or they can be used proactively by putting someone in front of the console full time to probe and look for potential trouble.

Nobody claims ESM is easy. The goals of the practice remain ambitious, and the software is still a work in progress. But CIOs can avoid many of the pitfalls into which ESM pioneers have plunged. Coordinating not only the software but also the people and processes that make it work can result in a harmonious operation. In today's jumbled client/server computing world, that's beautiful music indeed. **CIO**

Senior Writer Derek Slater can be reached at dslater@cio.com.

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- PC Computing
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Emerging Technology

THE STATE OF THE ART,
NEW PRODUCTS
AND STAYING AHEAD
OF THE CURVE

Edited by Howard Baldwin

Smooth Sailing in the Channel

*Automating partner relationships
can shorten selling time*

BY ALAN S. KAY

INDIRECT SALES CHANNELS ARE NOTORIOUSLY difficult to manage. As independent companies, resellers may sell product lines from several competing companies. Since their salespeople typically work on commission, they aren't inclined to spend much time reading the marketing materials that arrive in box loads from your company. But when they do want information—about configuration, availability and price, for example—they want it immediately and will turn to a competitor if they can't get it from you.

Channel sales partners are as important as they are challenging. By extending a company's reach beyond those customers who buy directly or off the retail shelf, these partners are vital to maintaining revenues and gaining competitive market share. Consequently, it's no surprise that companies are increasingly investing in their relationships with value-added resellers (VARs) and other partners. They're exploring how new technology tools can increase the availability of marketing and collateral sales materials, quickly deliver information about sales promotions to the people who actually do the selling, get a firm handle on each partner's performance and shorten order turnaround time by making product configuration tools accessible.

For example, at 3Com Corp., the Santa Clara, Calif.-based networking and communications company, 90 percent of its products are sold indirectly through channel partners. Leads are vitally important to drive those sales. They must flow smoothly to the sales representatives, and from them to local channel partners qualified to pitch and close the sales.

Those sales leads used to go out by e-mail and disappear. There was no way to manage the leads other than by phone, says Lee Phillips, 3Com's director of large enterprise marketing. Nor was there any way to analyze leads' trends and patterns.



To change that, Phillips contracted with Cambridge, Mass.-based ChannelWave Software Inc. for a Web-based sales-lead tracking system that ties together his division, its sales representatives and its independent reseller partners. 3Com posts leads on the Web site, and partners report status and results, allowing 3Com to track a marketing program's effectiveness and partner performance. "The system is incredible," says Phillips. "We now have an automated process that will give us insight into the pipeline of lead activity from beginning to end, including data about the activities of the channel partners."

Making Managing Easier

Given the complex and often scattered state of most companies' channel management systems, arriving at informed decisions about partners is not easy. The profitability of any given channel relationship is difficult to measure, making it challenging to evaluate ROI and allocate resources to support effective resellers. At hard-drive vendor Western

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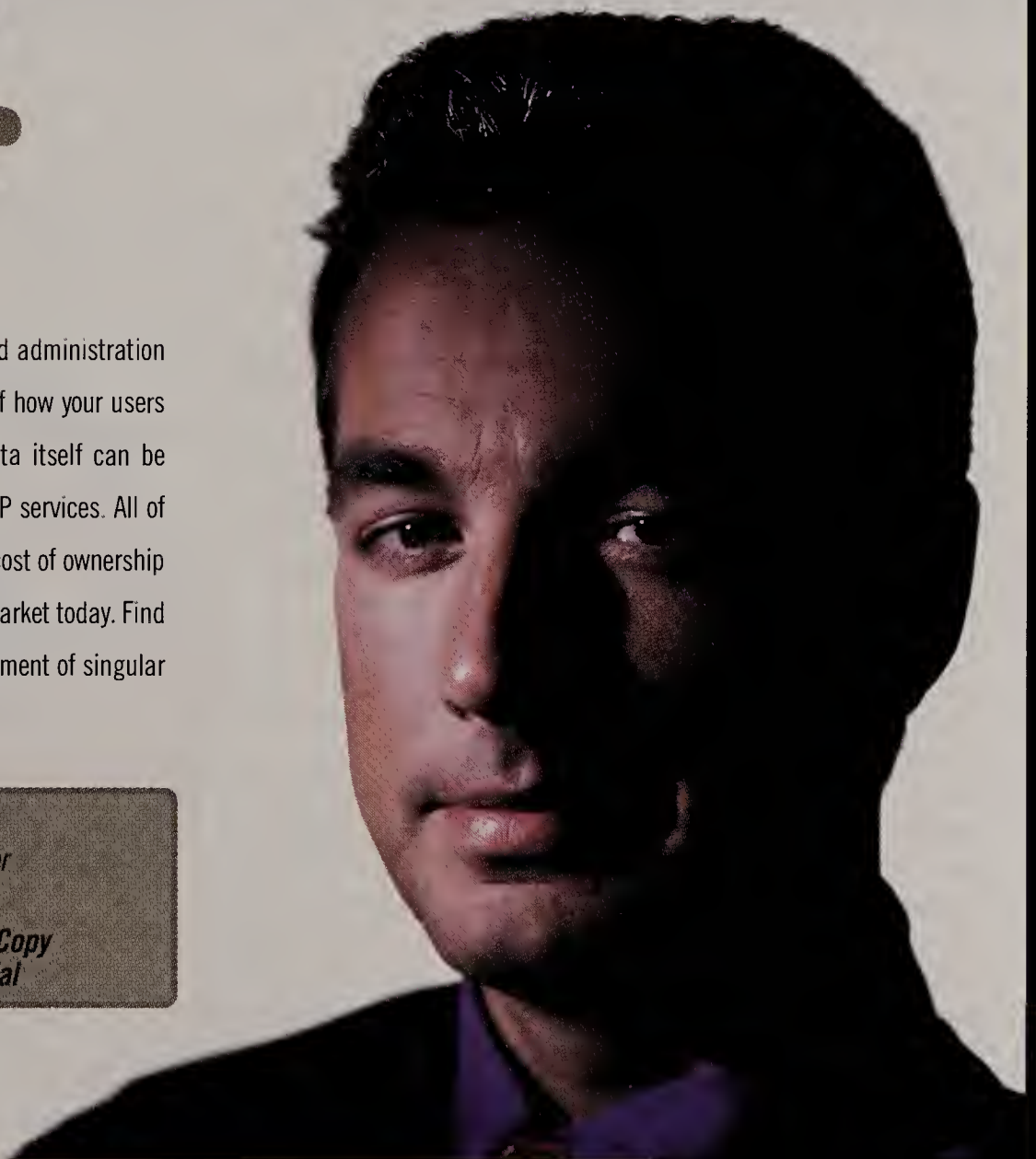
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Emerging Technology

Digital Corp. in Irvine, Calif., for example, Director of Strategic Marketing Peter Quill recalls that when he joined the company two years ago, tracking the performance of individual channel partners was almost impossible because data was scattered across systems and queries couldn't be easily customized.

"Every time I asked for information," he recalls, "it took three phone calls and a week and a half to get the answer." That's no longer the case. Western Digital now manages its partner relationships using Partnerware Extended Enterprise, a software package from Austin, Texas-based Partnerware Technologies Inc.

These packages are part of the emerging category of extranet-based partner relationship management (PRM) tools. PRM has roots in the automated customer relationship management (CRM) approach that has become popular in the past several years (for more on CRM tools, see the special CIO-100 issue, Aug. 15, 1999). But where CRM seeks to optimize a vendor's direct sales, PRM addresses the more complex challenges and different behaviors involved in acquiring, communicating with and supporting partners in a company's indirect sales chain.

The Web Steps In

If one key technology has enabled the development of PRM tools, it's the Web. That's more than a little ironic, since in the early days of Internet development, there was no shortage of warnings that the capability of customers to buy directly online inevitably would mean the death of channel partnerships. However, as Robert DeSisto, a Lowell, Mass.-based research director at GartnerGroup Inc., notes, vendors exploring this possibility quickly found that partners were doing a good job of delivering local service of a kind that large, broadly based sales organizations weren't in a position to provide. Now, says DeSisto, we're seeing the flip side: Enterprises are forging new and stronger channel relationships and asking how they can be made more effective.

The prototypical PRM system will allow a reseller or other channel partner using any standard browser to log onto the vendor's password-protected chan-

A Byte-Size Server

He's got the World Wide Web in his hands

LAST JANUARY, STANFORD University computer science professor Vaughan Pratt built the diminutive Sugar Ray Leonard of Web servers, and he did it from off-the-shelf materials.

At 1.75 inches in height, 2.75 inches in width and .25 inches in thickness, it is smaller than Palm Computing Inc.'s Palm V, the current standard in handheld devices. Though it may be small, the server

require users to focus all of their attention on the cumbersome machines glowing before them in order to execute a task. Instead, he envisions computers that will function as "invisible servants," assisting people with activities that don't center around a PC. For example, if you want to find out what conferences are coming to town, you sit in front of your Web browser and type a URL to bring up a schedule of events. In Pratt's world, you won't have to be seated before a PC to get this information. You can be roaming any city and your "Jeeves," as Pratt refers to these machines, will let you know what events are going on in the area that might interest you.

During the next two years, Pratt will continue to develop a digital sign language known as thumb code and an adaptation of speech recognition technology so that people have an effective way to interact with these computers, since the traditional human-computer

POCKET ROCKET

packs as much punch as a desktop machine 3,000 times its size. The "byte-size" Web server consists of an Advanced Micro Devices Inc. 486-SX computer with a 66MHz CPU, 16MB of RAM and 16MB of ROM. Running the Linux operating system, it performs all of the basic functions of a PC. It is connected to the Internet via a parallel port. Its power supply is a 4.8-volt rechargeable toy car battery (roughly equivalent to four AA batteries).

Pratt says that with a personal Web server, individuals and companies can host their own sites, which reduces the costs associated with maintenance, administration and renting the space for a unique IP address. Though he has not yet proposed a date, Pratt is considering putting the Web server on the market.

In creating such a small machine, Pratt hopes to make all computers into more convenient, less "invasive" tools that don't

interfaces of keyboard and monitor don't scale down as easily as the processor. He predicts that in five years, consumers will have access

to such devices. In the meantime, Pratt and his colleagues at the Stanford Wearable Computing Laboratory created the companion to the Matchbox Web Server, the Matchbox PC, in April. For more information, visit wearables.stanford.edu.

—Meridith Levinson





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nel Web site. Here he or she will be greeted with a customized page that offers a mix of vendor and product news, listings of relevant current promotions, new sales leads, sales statistics and the opportunity to update the status of current accounts, and links to marketing, product and other collateral materials in printable form. It may also provide access to a product configuration engine, inventory querying, online ordering or order tracking. In addition, an integrated online notification system will generate targeted e-mails with embedded URLs to alert specific resellers of timely information awaiting them on the Web site.

Tools from Startups

PRM tools have started to show up only in the last 15 months. They're coming from two sources: a handful of young companies working at the intersection of extranet technology and enterprise relationship management and some established sales-force automation vendors seeking to extend their suites into the PRM arena.

These companies are doing much to define this category of business tool. They include the following:

- ChannelWave Software Inc. (formerly VirtueFlex Software Corp.) of Cambridge, Mass., released ChannelWave 2.0 in March 1999. President and CEO Chris Heidelberger says the company is focused on opportunity management—lead distribution and tracking, product configuration, price quoting and ordering, and sales forecasting. Santa Clara, Calif.-based Nortel Networks Corp. has been running a ChannelWave system since October 1998. "I can go into the system today," reports Lisa Quaglietti, former director of customer development, "and tell you how much business has been generated as a result of a particular marketing program. And I can show how each partner is doing with what they've been given."

- Partnerware Technologies Inc., a 3-year-old Austin, Texas-based company, is now offering version 2.0 of Partnerware Extended Enterprise. President and CEO Eric Hills says the product focuses on the softer side of partner relationship initiatives: communicating channel marketing opportunities and programs, managing leads and supporting team-selling involving both channel partners and internal sales personnel.

- Webridge Inc., a 3-year-old company in Portland, Ore., released Mainspan, a Web application server platform with PRM components built in, in July 1998. Mainspan has an object-based business rules engine to store program logic and six core components.

Craig Friedrich, CIO of InFocus Systems Inc., a Wilsonville, Ore.-based manufacturer of multi-

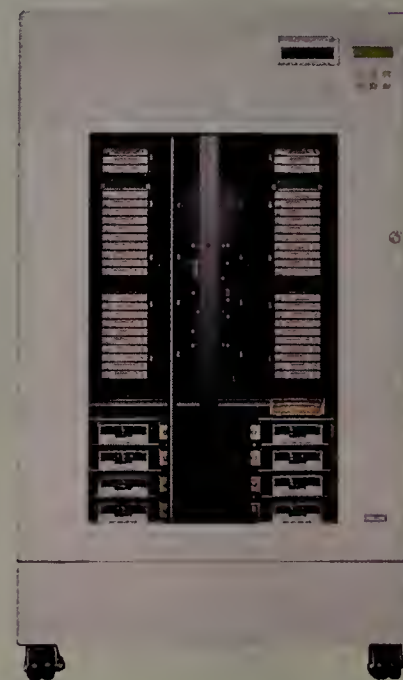
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The TLS-412360 supports backup, archive and hierarchical storage management (HSM) software such as Computer Associates International Inc.'s ARCserve, IBM Corp.'s ADSM, Seagate Technology Inc.'s Backup Exec, Legato Systems Inc.'s NetWorker BusinessSuite and Veritas Software Corp.'s NetBackup. Emulation software offers compatibility with most Unix platforms and Windows NT. The price for the tape library ranges from \$83,000 to \$157,000, depending on configuration. For more information, call 818 592-0061 or check out www.qualstar.com.



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CREATING A SOFTWARE MODEL THAT ENCOMPASSES EVERYTHING you want to know about an application is no fun. Mapping processes, data, components, objects and business requirements in one model is difficult, but having the information in one place can be valuable. Popkin Software & Systems Inc.'s **System Architect 2001** is designed to map all of these pieces into one repository-based visual model in order to help companies react quickly to changes in their business or competitive landscape.

The software supports the Catalyst and IDEF standards for business and process modeling and the UML standard for component and object modeling. Other pieces of the software support data modeling as well as traditional structured analysis and design techniques. It also includes generators and interfaces for application developers as well as links to workflow and simulation tools. An HTML generator lets users publish models on a company intranet. The mapping software is priced at \$3,295 per seat or \$4,995 per concurrent user. For more information, call 212 571-3434 or visit www.popkin.com.

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media projection systems, cites Mainspan as both elegant and a good value. He praises the fact that partners are greeted with customized pages and that the tool allows nontechnical business unit personnel to publish materials on the Web. Randy Boyd, technical manager at ProView Inc., a Charlotte, N.C., VAR that includes InFocus products among its offerings, says the new system is efficient, eliminating a lot of telephone tag and paperwork. He likes it because online you can get answers; you don't have to talk to anybody in person.

■ In February 1999 Allegis Corp. (formerly Net-It Software Corp.) in San Francisco came to market with Allegis Sales Partner, which uses a Web platform architecture to support an application suite for life cycle management of an array of partnering relationships.

Justifying a PRM Tool

Cost-justifying a partner relationship tool is largely a matter of estimating the value of increased sales from targeting sales leads more effectively, of shortening the lag time for a sales promotion or a new product rollout by getting the word out immediately to the right partners, and of improving sales effectiveness by making collateral materials and configuration engines readily available.

Vendors have adopted a variety of pricing models, making comparisons difficult. But according to Webridge Vice President of Marketing Gary Whitney, installations carry price tags from \$200,000 to \$500,000.

At Executone Information Systems Inc. of Milford, Conn., the PRM value proposition is simple, says Tom Berry, director of marketing communications and channel management, who uses Webridge's Mainspan. He reports that a time savings of just a half-hour a week—a sales partner not having to wait on hold for telephone information, for example, or to search paper files—translates into more than \$5 million in increased annual revenues per salesperson.

Finally, there is one other issue to consider. Automating business processes may force you to examine how well those processes are designed. That can be as trivial as having to redesign forms or as profound as discovering, as InFocus did in talking to its sales partners, that communication was disjointed. "What our channel partners saw," says Friedrich, "was a machine-gun fire of random information constantly spewing from our company. One even said, 'You guys are killing me; it's too complex.' That forced us to address how we go to market with information." **CIO**

Alan S. Kay covers business technology regularly for CIO. He can be reached at ask@well.com.

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AS IF PCS DON'T DO ENOUGH AS IT IS, AIMS LAB INC. HAS created a behemoth add-in card called **VideoHighway Xtreme 98 Deluxe**, which lets users watch television, listen to the radio, capture video and conduct videoconferences with other card users. The new card also lets users record both AVI and MPEG-1 video clips (a 266MHz Pentium II PC with at least 32MB of RAM is required) and broadcast in stereo sound if the television program supports it. Other features include support for video e-mail, Intel Corp.'s InterCast, Microsoft Corp.'s WebTV for Windows and WavePhore Inc.'s WaveTop.

Bundled with the card is a collection of seven tools for image editing, Web creation and multimedia management. A multifunctional remote control lets users change channels; control the volume, brightness and color; switch radio stations; and engage the digital video recording functions from up to 25 feet away. The card costs \$110. For more information, call 510 661-2525 or visit www.aimslab.com.



Interactive Training

IF YOU'RE DEPLOYING MICROSOFT OFFICE 2000, TRAINING IS going to be a big issue. To simplify training concerns, the Microsoft Press has developed Office 2000 **Step by Step Interactive**, self-paced computer-based training software designed to help users build proficiency in Office 2000 through task-oriented lessons, a simulated Office 2000 software environment, hands-on practice with Office applications and skills assessments.

Step by Step Interactive offers a comprehensive and flexible syllabus, guided simulation lessons and preassessment exams to help users determine where to concentrate their learning so that they get the most from new product enhancements and retain what they learn. The network version of the product allows administrators and training managers to control, customize and monitor each facet of users' training experience. For instance, administrators and training managers can adjust the course syllabus to meet specific user or group needs, generate detailed progress reports and create custom exam questions to cover the tasks that are most critical in their organizations. The network version can be delivered over a LAN or via an Intranet, and includes a content-cache feature that minimizes download time for users who work from Internet or remote connections.

The single-station retail version of Step by Step Interactive (without the administrative and network features) costs \$29.99. The network version ranges from \$26 to \$36 per desktop, depending on the number of desktops purchased. For more information, call 800 677-7377 or visit mspress.microsoft.com.

A black and white photograph of an astronaut in a space suit, floating in space. The astronaut is looking out of a circular window, and the Earth's horizon is visible in the background, illuminated by a bright sun. The astronaut's helmet has a small light on it.

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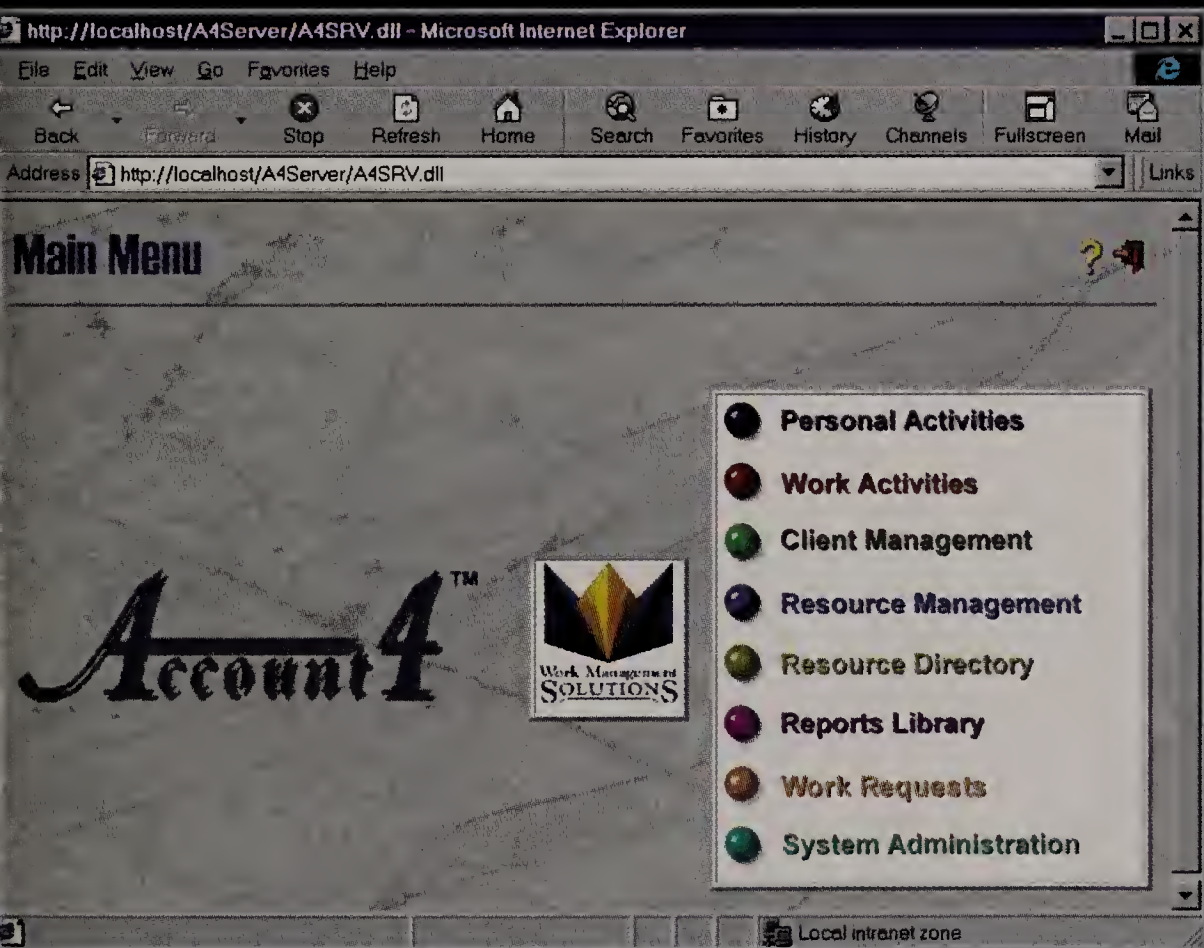
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Russ Wells on Merging IS Departments

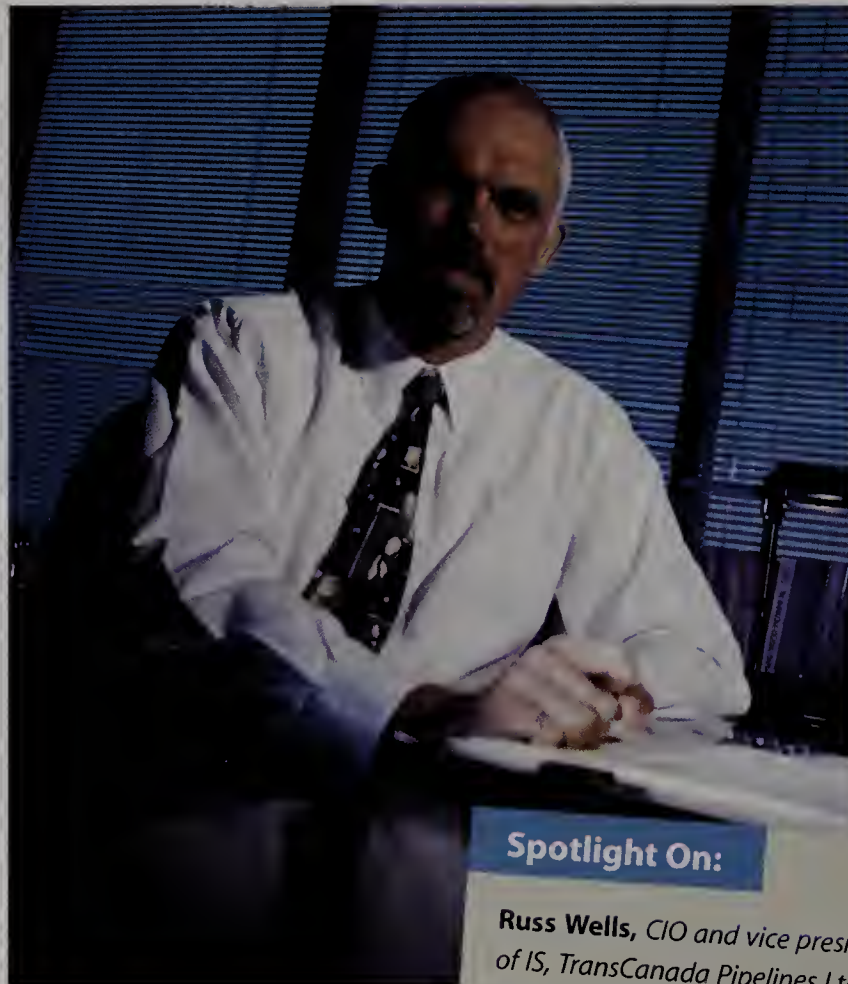
Editor's Note: In July 1998 TransCanada Pipelines Ltd. merged with Nova Corp. Wells was charged with merging the two companies' IS departments into one.

How were Nova's and TransCanada's IS departments different?

Nova had outsourced all application development, infrastructure, operations and technology. TransCanada was the opposite. There were some vendor relationships, but mostly internal people were doing the work. Nova was decentralized and there was little central IS control. Each business unit made its own IS decisions. At TransCanada, all the IS people were in one group reporting centrally to a CIO.

How did you organize the new group?

We patterned ourselves after the business, which organized itself into four business units (transmission, marketing, processing and international). So we created a central IS group with four IS director positions, each reporting to the business unit, with a dotted line back to me. I come from an operations background and I've always felt that if you get the IS people closer to the people actually doing the business, you're



Spotlight On:

Russ Wells, CIO and vice president of IS, TransCanada Pipelines Ltd., Calgary, Alberta, Canada

- **Line of Business** Energy products (natural gas, electricity and petroleum) and services
- **Bio** Became CIO in July 1998 after an 18-year career in IS, design engineering and operations at energy and chemical company Nova Corp.
- **Challenges** Creating a single IS group from two different merged companies

more likely to have some success there.

What challenges did you face in the reorganization?

The staff was anxious, and it became clear early on that we had to resolve the people issues—mostly around outsourcing. People wanted to know who was going to be working where. So last October we brought everyone together into a huge room and announced that we were going to outsource infrastructure maintenance and support, and bring application development, maintenance and support in-house. TransCanada was going to take responsibility for strategic IS vision—even on the infrastructure side. We had

quickly as possible. At the same big meeting, we also described the timetable because I wanted people to know that this wasn't going to take forever.

Did you have layoffs?

No. Integrating different systems is taking more work than either organization had planned and budgeted for on its own. We did decide to move about 100 people to an outsourcing vendor, however. And about 20 people from a vendor moved to TransCanada.

How did people react to those changes?

We worked hard to give everyone the information they needed to make a decision in terms of pay, benefits and job roles. They had meetings with our people from IS and HR and the equivalent people from the vendor. I don't want to underplay it; it was a big change for people, there were anxieties and concerns but I think the people were fine with it. Some people see moving to a big outsourcing vendor as an opportunity and others view leaving the company as a loss, despite the fact that when you toted up everything—pay, benefits, etc.—people didn't lose anything. In general, the people side of a merger is the whole game. Those people know your systems.

—Christopher Koch

many rumors about what would and wouldn't be outsourced, but we moved fast enough that the rumors weren't allowed to fester. You just have to go as fast as you can with change, especially in a merger. Of course, after you announce something, you have to keep clarifying it. We set up an online Q&A forum and we made sure we posted answers as

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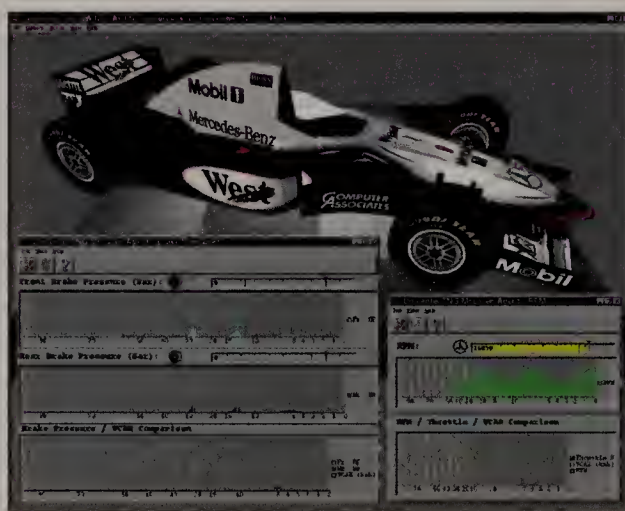
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